The Croonian Lectures

ON THE

PROGRESS OF DISCOVERY RELATING TO THE ORIGIN AND NATURE OF INFECTIOUS DISEASES.

Delivered at the Royal College of Physicians, London,

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LECTURE IV.

I PROPOSE to bring these lectures to a close by a study of the subject of "Specificity"—a word which we apply to diseases just as we do to plants and animals. The name of a disease stands for the *ensemble* of the pathological phenomena which present themselves together or in succession in a case of that disease, or in the body after death; and the conception which we may thus form of it may be more or less complete even in the absence of any certain knowledge as to its nature or cause.

It may be stated generally that a specific disease has more individuality, more unity, than any other. The question we have now to consider is whether this specificity can be explained by referring it to the external causes by the operation of which we believe the disease to be produced. If we can so explain it, we bring the disease itself within reach of experimental investigation. From the moment that a disease can be regarded as not merely a complex of symptoms and lesions, but as the operation of a known cause, which can be defined by the physicist, the chemist, or the biologist, its phenomena become parts of a physiological process to be investigated, whether in the ward or in the laboratory, by physiological methods. I propose to-day, after a very brief preliminary discussion of the relation between the specific character of infective diseases and their external causes, to bring under your notice a series of examples of such diseases, in the hope that I may be able to show that, however inadequate our knowledge may be as yet, there is reason to anticipate that at no very distant period it may be possible to regard all acute diseases as physiological processes.

PART I. *The Origin of Bacteriology*.—May I begin by referring to a paper written by me in 1869 "On the Intimate Pathology of Contagion,"[1] in which the etiology of the acute infective diseases was discussed, with such light as we then possessed? At that time the ideas of pathologists as to the origin of infective diseases were vague. Contagia were regarded as vaporous or gaseous, and "sewer gas" in particular was thought to be capable of producing any of the zymotic diseases. But the laborious investigations of Chauveau had begun the new era by proving, as regards a series of communicable diseases in animals, that the *materies morbi*—the substance which, when introduced into the body of a susceptible animal, gives rise to the process by which it was itself produced—is neither soluble nor diffusible, but consists of particles of indefinite minuteness separable by subsidence or filtration from the liquid in which they are suspended.

In the year I have mentioned, 1869, I spent some time at Lyons, and had the opportunity of witnessing and taking part in M. Chauveau's experiments. Subsequently I made a series of experiments on vaccine, the purpose of which was not to show that the "infective particles" in question were living organisms, but to prove that in this case, as in the others, the activity of the lymph is due to their presence; but in discussing these results I drew the inference from them that these particles are "probably organised beings," and that their powers of producing disease are due to their "organic development." The ground for this inference was that it afforded a satisfactory explanation of the two "facts" which at that time appeared among the most important as well as the best ascertained in relation to the subject. These were, as stated in the paper I have referred to, (1) that "in the body of the infected individual the particles of contagium rapidly reproduce themselves," and (2) that "out of the body they are capable of resisting for very long periods the influences of conditions which, if not restrained by organic action, would produce chemical decomposition." During the years which followed, very little progress was made in elucidating the relation between specific diseases and their causes; for although this period was rendered for ever memorable in the history of the healing art by the triumph of Listerian surgery all over the world, and a vast store of knowledge was acquired and accumulated as to the etiology of *traumatic* diseases, and as to their dependence on external contamination, no precise knowledge of specific microphytes was acquired until, in 1876, Dr. Koch made his first great discovery of the mode of growing the bacillus anthracis outside of the living body, and of its remarkable life-history[2]—a discovery which, as regards anthrax, appeared to afford a complete explanation of both of the facts which I had emphasised in 1869: the rapid growth of the bacillus inside, its resistance outside of the infected organism. At first this great and fundamental discovery was not so productive as might have been expected, for for several years the bacillus anthracis was almost the only specific disease producing microphyte which could be so cultivated in a pure state. Probably the most important direct advantage which arose from it was that it brought the discoverer to the front, and led to his abandoning the practical duties of his profession, in order to devote himself to those pathological investigations to which almost all the new knowledge which I have endeavoured to embody in these lectures is directly or indirectly due. The reason why progress was not more rapid was that at that time no general method existed for the discrimination of the species of microphytes by the determination of their morphological and physiological characters. It was recognised by all who were concerned in what are now called bacteriological investigations—the word "bacteriology" had not then come into use—that the question of the hour was to find out how to sort pathogenic from harmless species and from each other. Many were the efforts to solve this problem, some of which were partially successful. In looking back at that time one wonders how it was that it occurred to no one how to make the egg stand up as it ought to do. But it was not until 1880, as you all know, that Dr. Koch, by his method of cultivation on the surface of solid media, at once and for ever swept away difficulties which till then had been insuperable. As this method has rendered it possible to make out the etiology of each of the specific diseases which I shall have to discuss to-day, I may be permitted to occupy a few moments in telling you how the discovery was arrived at.[3] It had been known to mycologists that when you expose a freshly cut surface of a boiled potato to the air, and then keep it at a suitable temperature and protect it from evaporation as well as from further contamination for a few days, a number of points of growth appear on it, coloured or colourless. On investigating this phenomenon, Dr. Koch found that each point was a colony of microphytes of one species which had arisen by the multiplication of a single individual at the spot at which it fell; so that if several species were represented by colonies, the colonies representing them were separated from each other. He further found that colonies of different species exhibit to the lens, or even to the naked eye, differences of form or arrangement which were often even more characteristic than those observable microscopically. Had the same atmospheric "germa" fallen into a nutritive liquid—e.g., into a saucer of *bouillon* of the same size as the potato—they would have grown as well or better, but the growths would have been inseparably mixed. Falling on a concrete surface, each germ vegetated after its kind, without mixing with its neighbours. The potato experiment was the egg of Columbus. It not only suggested a method of sorting, but brought to light a new order of characteristic distinctions. No sooner had Dr. Koch recognised this than he set to work to substitute for the sliced potato a solid medium which should have all the nutritive advantages of the liquid media previously in use. This he accomplished by adding

[1] On the Intimate Pathology of Contagion. (Twelfth Report of the Medical Officer of the Privy Council, p. 229.)

[2] Koch: Cohn's Beitr. zur Biol. der Pflanzen, vol. ii., p. 277, 1876.

[3] Koch: Zur Untersuchung der Pathogenen Organismen. (Mittheilungen an der k. Gesundheitsamte, vol. i.)

to them gelatine or "agar" in sufficient quantity to make them set at the required temperature, using gelatine when summer temperature was sufficient, agar[4] for those microphytes which refused to grow at any temperature other than that of the body. One step more was wanted. In order to carry out the sorting process effectually it was necessary to sow the microphytes, contained say, in the fraction of a drop of blood, over as large a surface as possible. Obviously this must be done by dilution. The plan adopted was to add the droplet to an ocean of the gelatinised medium, mix thoroughly, pour the mixture on a horizontal glass plate, allow it to set, and let it stand at the proper temperature. In this way the bacterial inhabitants of the droplet were distributed over an extremely wide surface, and consequently the colonies which resulted from their growth were relatively far apart from each other. All this was realised by Dr. Koch in all its technical details with such completeness that, excepting for special purposes, it has scarcely been improved. Its value as a means of investigation cannot be over-estimated. We have already had occasion to see how it serves for the enumeration of the total number of microphytes which any liquid contains; but its chief use is that it enables the bacteriologist to fish out particular species from the rest, in order to test their pathogenic or other endowments. Into the *technique* of this fishing process I will of course not enter. The diseases which I propose to refer to as illustrations of what has been done during the last ten years in determining the nature of the relation between etiological and pathological specificity, between specificity of cause and specificity of process, are tuberculosis, typhoid fever, pneumonia, tetanus, and diphtheria. Of tuberculosis I shall speak only with reference to its mode of origin.

PART II. *Etiology of Specific Infective Diseases.*

Tuberculosis.—Dr. Koch's third discovery,[5] that of the bacillus tuberculosis, was a triumph of scientific insight and technical skill no less remarkable and no less fruitful than the second. When on March 24th, 1882, he made the bold but perfectly justified statement that he had discovered not merely a constant concomitant of the tuberculous process, but its cause, and had thereby for the first time given a complete proof of the parasitic nature of an infective disease of man, he did so on two grounds—namely, (1) that in the examination of the most varied forms of tuberculous disease in man and animals, the presence of the bacillus could be demonstrated by characteristic microscopical characters, and (2) that it could be cultivated outside of the body without mixture with other microphytes, the pure culture so obtained being endowed with the same power of communicating the disease to animals that was possessed by the pathological product (diseased tissue or sputum) from which it was derived. Both the methods by which these proofs were obtained—the method for demonstrating the presence of bacilli in tissues and sputum and the method of cultivation—were exclusively due to Dr. Koch's ingenuity and perseverance. I need not refer to his first method of preparing and staining the bacillus of tubercle, for it has been replaced by better ones, which are now so well established that they can be used clinically as a means of diagnosis; but it is still of interest to refer to the means by which he overcame difficulties which then stood in the way. Finding that the tubercle bacillus would not grow in any of the media commonly used for cultivation, but that it would grow in serum at the temperature of the body, he sought for and obtained a method of gelatinising this liquid so as to give it the advantages of a concrete medium. For a succession of years serum rendered gelatinous by his method was the only soil on which the tuberculous bacillus was grown; but recently its manipulation has been much facilitated by the discovery of Dr. Roux that peptone agar containing a certain percentage of glycerine can be advantageously substituted for it.[6] In this way tuberculosis (which on pathological grounds had been regarded as a kind of secondary or infective inflammation distinguished from other secondary inflammations by its relative chronicity and by its localisation in the lymphatic system) was proved to be etiologically among the most specific of infection processes, for in no instance can the characters of the morbific agent be specified in more precise terms. The anatomical knowledge which we possessed twenty years ago was sufficient to prove that, notwithstanding the endless variety of the ulterior manifestations of tubercle, the origin and development of the tuberculous process differed from those of any other human disease. But, as so often happens in physiology and pathology, this old knowledge has had to give place so completely to that which has been more newly acquired that, as regards the essential nature of the structural change which constitutes tubercle, it almost seems as if one might sweep away all that was done before 1880 and no one would be the worse for it. There could be no greater mistake. The reinvestigation of the subject by better methods has not shown the old observations to be wrong, but only given them more precision and exactitude. To the observer of 1890, facts of essential importance are known which in 1870 had not been revealed—viz., the nature of the agent, and the morphological characteristics of its action. By using methods in which both of these elements are taken into account, Baumgarten, Cornil, and Yersin[7] have been able to give us a "revised version" of the origin and early developments of the tuberculous process, which, although perfectly consistent with the old one, is stated in more precise language and in greater detail. It has, I think, been shown that the tubercle bacillus has no direct phlogogenic action—i.e., that its primary action is to excite germinative changes (proliferation) in tissue cells, particularly in those of adenoid tissue, so that, in its origin, the process is independent both of active congestion and of emigration of leucocytes.

Typhoid Fever.—The relations of typhoid fever to tuberculosis are sufficiently close to make it convenient to place it first among the more acute infective diseases on our list. There is none of which the etiology has been more seriously studied, but also none as to which contradictory theories have been advanced with more confidence. Even now our knowledge on the subject is far from being so complete as one could wish. Here, as in the case of tuberculosis, it is on the mode of origin of the morbid process that we have to fix our attention, and in this respect the two diseases to a certain extent resemble each other; for one of the channels by which the tuberculous infection enters the organism, though by no means the one most frequently followed, is the enteric lymphatic system. In typhoid fever it is probably the only doorway. In typhoid fever, as in tuberculosis, the initial change seems to be proliferation of the follicular tissue of the intestinal mucous membrane and of the mesenteric lymphatic glands; so that if we were to limit ourselves to those forms of tuberculosis which are of enteric origin, the two diseases might be supposed to resemble one another. In reality the differences are more noteworthy than the resemblances; for the typhoid process, if it begins like the tuberculous, goes on very differently. It is much more acute, and from the first shows itself to be much more inflammatory than hyperplastic—by which I mean that the affected parts are from the first the seat of active congestion and infiltration with leucocytes. Whether the typhoid process ever goes on to suppuration is matter of question, for certainly the lymphatic glands which are its principal seat do not suppurate in the early stage of the disease, though in prolonged cases suppurations are among the most formidable of its consequences. These no pathologist regards as anything but secondary. They are infective inflammations of typhoid fever, but not specifically so. They are due, not to *specific* poison, but to the diminution of the alexeteric power of the organism by which the common phlogogenic or pyogenic microphytes are able to get the upper hand. This is not a fancy but a fact, for whenever in typhoid fever the tendency to suppurate manifests itself, we find, as we should expect, that in the subcutaneous and submucous infiltrations which occur, the microphytes which are present have no special relations to typhoid fever, but are the clustercocci and chain-cocci which I discussed in my first lecture. The bearing of all this on the question before us is this: that the cause of typhoid fever must be sought for in the early stages of the

[4] Agar sets like gelatine, but remains solid at a higher temperature.

[5] Koch: Die Aetiologie der Tuberculose. (Berliner k. Wochenschrift, April 10th, 1882.)

[6] Nocard et Roux: Sur la Culture du Bacille de la Tuberculose. (Annales de l'Institut Pasteur, vol. i., p. 19.)

[7] Baumgarten: Histogenese des Tuberkulosen Processes, Berlin, 1885. Cornil: Les Bactéries, 3rd ed., Paris, 1890. Yersin: Étude sur le Développement du Tubercule Expérimental. (Ann. de l'Inst. Pasteur, vol. ii., p. 245.)

disease and in the tissues primarily affected, particularly in the intestinal mucous membrane and lymphatic glands. The discovery of the typhoid fever "germ" was one of the earliest aims of bacteriologists. One after another presented itself and had to make way for a successor of equal but no better pretensions. It was not until 1880 that Koch and Eberth[8] simultaneously fixed upon the micro-organism which has since borne Professor Eberth's name, and has now become as familiar to the bacteriological student as the bacillus of anthrax or tubercle. In form and even in mode of growth it is scarcely distinguishable from the common saprophyte which we used to call bacterium termo. It has active movements and locomotive organs in the form of flagelliform processes which are thrown out from either side. These can be much better seen photographically than by direct observation. By a method of staining which I need not describe they have been specially studied by Dr. R. Pfeiffer,[9] whose beautiful photograph I now throw on the screen. The typhoid bacillus occurs in the affected organs, and more especially in the spleen of patients, with great constancy, and can be transferred with such certainty to external media that Dr. Gaffky was successful in 93 per cent. of the cases he examined. Last lecture we saw on the screen the characteristic appearance which its colonies on gelatine plates present. It grows luxuriantly in milk, and is one of the few organisms which are capable of vegetating in drinking-water. In the organism it of course grows as an anærophyte, but it is equally or even more adapted to an ærophytic existence outside. Consequently, it must be regarded as much less specific than the bacillus of tubercle; so that, on the supposition (the truth of which I do not mean to assert) that both of them were in the distant past derived from harmless ancestors, we should be led to assign a much longer period of modification to the tubercle bacillus than to that of typhoid. Moreover, we cannot, as in the case of tubercle, assert that typhoid fever is caused by the bacillus, for the experimental proof is wanting. But even without that evidence, and with the knowledge that in all probability typhoid fever will never be communicated to animals, the constancy of the observed relation between the occurrence and distribution of the bacillus, and the existence and development of the disease seems to me (and I believe all pathologists will agree with me) to leave no doubt whatever as to its etiological significance.

Pneumonia, the next disease which I have on my list, is one which, although not included by the Registrar-General among those of zymotic origin, is, nevertheless, one concerning which preventive medicine is bound to occupy itself very seriously. There is no acute disease which it is more difficult to guard against, or which too often prematurely cuts off valuable lives, than lobar pneumonia. That genuine pneumonia is often a consequence of catching cold no one will dispute. But I suppose that everyone in this room would admit that when a person in good health is unexpectedly attacked by this disease in consequence of a chill, there is something else which gives to the chill its formidable significance. Have we any idea what that something is? Several species of microphyte have during the last dozen years been regarded as the cause of pneumonia. Early in 1883 the late Dr. Friedländer succeeded in cultivating from pneumonic sputa a characteristic bacillus which was proved by inoculation to be pathogenic, but the satisfactory clinical and experimental evidence was not more than sufficient to entitle it to be regarded as one of the causes of pulmonary inflammation. There is, however, another microphyte against which, as the *corpus* or *corpusculum delicti*, a great deal more may be said. This is known as the "diplococcus pneumoniæ" of Weichselbaum or pneumococcus of Fraenkel. In English it may be called the pneumonia dumb-bell. Its history is as follows: In 1881 M. Pasteur observed, to his surprise, in inoculating a rabbit with the saliva of a child affected with hydrophobia, that the animal died rapidly of septicæmia. Subsequently Dr. Sternberg of Washington,[10] having observed that the inoculation of pneumonic sputum induced in the rabbit symptoms similar to those observed by Pasteur,[11] repeated the experiment with his own saliva. As this animal also died of septicæmia, he was led to investigate the subject bacteriologically, and found that in all the animals inoculated the same microzyme occurred, and that it corresponds with Pasteur's description of the *microbe septicæmique du salive*. Then, in 1886, the subject was cleared up by the investigation of Dr. A. Fraenkel, who obtained pure cultures of Pasteur's micrococcus in five out of seven cases of pneumonia that he examined, settled its specific characters and pathogenic action, and christened it pneumococcus. During the same year Dr. Weichselbaum, working at Vienna, made an independent discovery of the same microphyte, and described it under the name of "diplococcus." He investigated eighty-six cases of pneumonia, and found it in eighty-one. Irrespectively of its relation to pneumonia, which can now scarcely be disputed, the pneumococcus is one of the most remarkable microphytes known: first, because under certain conditions it is so extremely virulent; but secondly, because it exemplifies the general principle that virulence is one of the most variable attributes of a microphyte—one which is most affected by its environment. Experiments show that even when introduced in the smallest quantity into the subcutaneous tissue of a rabbit, it multiplies rapidly both in the blood and in the tissues, and that the septicæmia thus produced is of such rapid progress that, with the exception of the enlargement of the spleen, it leaves no lesions behind it. On the other hand, it grows with great unwillingness outside of the body, even in media which are especially suited to it, and, under the most favourable conditions, loses its toxicity in a few days. It is thus capable of thriving either as an ærophyte or as an anærophyte. As an ærophyte it is inactive, but at once regains its morbific power by transplantation from the medium in which it grows best to the living organism of a rabbit. Like some human beings, it is active only in controversy; its virulence declines from the moment that it is no longer required to struggle for existence. And now we must endeavour to come to a conclusion as to the part which this very variable microphyte takes in human pathogeny, and for this purpose I wish to bring under your notice some facts observed by my friend Dr. Netter, the accomplished Director of the Hygiene Laboratory of the Faculty of Medicine in Paris, who, with the best possible clinical opportunities, has devoted the labour of years to this subject, with special reference (1) to the constant presence of the pneumococcus in cases of croupous pneumonia; (2) to its participation in other acute processes; and (3) to the etiological significance of its presence in the saliva of apparently healthy persons. Having, to begin with, succeeded in cultivating the microphyte in the first twenty-seven cases that were admitted into hospital, without a single failure, he regarded the first point as provisionally settled. As regards the second point, he found that in infective—i.e., secondary—inflammations of other internal organs the pneumococcus occurs with a frequency which is comparable with that of streptococcus. Lastly, its presence in the saliva is held by Dr. Netter to be a remainder of pneumonia. Finding that in ordinary individuals the saliva is free from pneumococcus, whereas it is usually to be met with in that of persons who have had pneumonia, he connects its presence with the liability to recurrence of the disease which is often observed. Time only can determine the value of the facts on which this inference is founded. In any case the causal relation which they suggest is a complicated one. For if the pneumococcus is in some apparently healthy persons always present, it seems evident that it cannot act alone. The sword of Damocles may be always there, but the moment at which it falls must be determined by other concomitant causes—a catarrh, a disorder of the circulation, or possibly the operation of some more subtle infection, such as that of influenza. Still less can it be stated that croupous pneumonia is the only pathological outcome of the pneumococcus. In addition to the observations of Dr. Netter, to which I have already referred, we have evidence of the most trustworthy kind as to its association with that most specific and infective of acute inflammations, epidemic cerebro-spinal meningitis—a disease which is often associated with croupous pneumonia; and also a remarkable series of cases of otitis of the middle ear published by Zanfal.[12] Its presence in the middle ear is of course easy to

[8] Koch: Zur Untersuchung von Pathogenen Organismen. (Mittheilungen an der kaiserl Gesundheits-Amt, vol. i., 1881.) Eberth: Virchow's Archiv, vols. lxxxi. and lxxxiii.

[9] Frankel and Pfeiffer: Mikrophotographischer Atlas der Bakterienkunde, plate liv. (Berlin, 1891.)

[10] Sternberg: Der Mikrokok der Sputum-septikæmie. (Deutsche Med. Woch., 1887, p. 44.)

[11] Pasteur: Note sur une Maladie nouvelle provoquée par la Salive &c. (Bulletins de l'Acad. de Médecine, 1881.)

[12] Zanfal: Fälle von gewisser acuter Mittelohrentzündung &c. (Several papers in Prager Med. Woch., 1889. Ref. in Baumgarten's Jahresb., 1889, p. 80.)

understand, but how it finds its way into the cerebro-spinal cavity is difficult to explain.

Tetanus.—I wish now to ask your attention to two diseases which, although they are not allied to each other pathologically, have this in common—that in each a well-defined microphyte is forthcoming, and that each of these acts rather by its chemical products than by itself, and, in particular, that each exerts a special action on the nervous system. The history of the discovery of the tetanus bacillus has unusual interest. A dozen years ago traumatic tetanus was not regarded as an infective disease. Dr. Heiberg of Christiania had given good pathological grounds for thinking that it was so, and several leading surgeons, particularly Sir Spencer Wells, had declared it to be so on clinical grounds. Soon afterwards experiments were made on the subject both in France and Germany, but without result. It was not until 1884 that Carle and Rattone found that by inoculation of pus from a wound which had given rise to tetanus they could induce a similar disease in rabbits. A little later Nicolaier made the remarkable discovery that pure cultures of certain bacilli contained in garden soil produce tetanus when injected subcutaneously, in animals. Next year Rosenbach produced tetanus in a number of animals by inoculating material from the seat of infection in a case of traumatic tetanus under his care,[13] and found Nicolaier's garden-bacillus both in the original material and in the infected animals. The effect of the publication of Rosenbach's communication was immediate. On April 18th, 1886, the tetanus bacillus was demonstrated in Dr. Koch's laboratory. Then followed a series of clinical and experimental investigations (in which, as usual, every country excepting England took part), the result of which was that in a very short time the claim of the tetanus bacillus to be regarded as the determining cause of the disease was established on the testimony of a sufficient number of competent witnesses. Biologically, the tetanus bacillus has two interesting peculiarities. Its characteristic form, that of a drumstick, is connected with the fact that each rod is capable of producing a spore at its end, the width of which when mature exceeds considerably that of the rod itself. The obvious presence of spores distinguishes it from most pathogenic microphytes, excepting of course the bacillus anthracis; but the tetanus bacillus is still more remarkable as regards its relation to oxygen. So far, we have found our morbific microbes to be, in the language of bacteriology, facultative anærophytes—i.e., capable of thriving either with or without access of air. The bacillus of tetanus is unconditionally anærobiotic. It was its extreme sensitiveness to oxygen that made it in the first instance impossible to cultivate it otherwise than in an atmosphere of hydrogen. Subsequently the distinguished bacteriologist, Dr. Kitasato, found that, in common with other anærophytes, the tetanus bacillus could be cultivated in tubes without exclusion of oxygen, provided that a percentage of grape sugar were added to the gelatine. In this way the tetanus bacillus, which was at first a very difficult plant to grow, has become familiar to bacteriological students from the very remarkable characteristics which it presents in puncture-cultures.

What does this remarkable anærophyte do in the living organism? It might be expected that in an animal killed by it in the characteristic way that I have described, the bacilli would be found everywhere. On the contrary, no lesion whatever is to be found in any organ, and no trace of the microphyte itself, excepting in the immediate neighbourhood of the focus of infection. It is therefore obvious that the development of tetanus cannot be described as a contest, a struggle for existence between the microphyte on one side and the organism on the other; for here the tendency to multiplication, which we once considered as an essential in every infective process, is conspicuously absent. The bacilli multiply, but their multiplication is limited to the seat of infection, to the immediate neighbourhood of the wound. In the dissemination of the *materies morbi* they take no part. That is due to a poisonous product of their growth, in respect of which the most remarkable fact that we know is that, although in a certain sense soluble, it spreads with extreme slowness through the organism.

Diphtheria.—Although the etiology of diphtheria is a subject beset with difficulties, recent researches, and particularly the clinical and experimental investigations which have been lately made in Paris, both in the Pasteur Institute and in the hospitals, have, I think, dissipated a good deal of the obscurity which existed a few years ago in relation to it. In the early days of bacteriology, diphtheria was one of the diseases which excited most interest from the circumstance that among the many microphytes which frequent the mucous surfaces which are its seat, the claim of some one to be regarded as its cause could always be advanced. The bacillus which is now admitted to be special to diphtheria was first recognised by Professor Klebs in 1883 as constantly present in the superficial layer of the membranous exudation, and in the course of the following year it was successfully cultivated by Dr. Löffler, of the Berlin Laboratory. It presents no very striking microscopical peculiarities, and is chiefly distinguished by the intense poisonous effects which it produces in animals. Notwithstanding its characteristic toxical properties, its claim to be regarded as the *fons et origo mali* was received with great hesitation, and chiefly for three reasons—namely, first, that the symptoms which it produces in rodents—sanguinolent infiltration of the cellular tissue at the seat of inoculation and of the lymphatic glands in relation with it, and sanguinolent effusion into the serous cavities—are not those of diphtheria; secondly, that cultivation of the diphtheria bacillus, although derived from genuine cases of diphtheria, are not always active; and thirdly, that in man the microphyte is not met with in the blood or in any internal organ, but is confined to the affected surface. For all these reasons it seemed difficult to determine whether the bacillus of Löffler might not play the same part in diphtheria that the chain-coccus does in scarlatina, as an important accessory agent in the production of the local lesions rather than as the initiator of the disease. But, as I said before, the researches of M. Roux, which were communicated two years ago to the Royal Society in a Croonian Lecture, have done a good deal to alter the position of the subject. As regards all the points investigated by Löffler in 1884, Roux confirmed the accuracy of the work done by that most cautious observer; but he added to them two important discoveries—namely, first, that all the phenomena described by Löffler as produced by pure cultivation of the bacillus are also produced by the chemical products of its growth; and secondly, that when dogs are used as test animals instead of rodents, the paralytic symptoms which above all others are pathognomonic of diphtheria manifest themselves in a characteristic way. At the same time (1889) that these researches were being carried on in Paris, Professor Brieger, in Berlin, included diphtheria in the general investigation of bacterial poisons, of which he, in conjunction with Dr. C. Fraenkel,[14] published the results in the spring of 1890. Time will not permit me to give any account of this research. It is of more importance to note that the investigation has been continued from the chemical side, in the Berlin Hygienic Institute during the present year[15] with very great completeness. Confirming all the statements of Roux as to the association of the toxical action with a proteid and as to the partial resemblance of the agent to an enzyme, they have, by a method similar to that employed by Brieger the year before, finally obtained an albumose—i.e., a body presenting the characters of the transitional proteids which are formed in the process of peptonisation—of such toxical activity that less than a milligramme of it injected subcutaneously induces in the rabbit a fatal disease, with characteristic lesions of liver, kidneys, and other internal organs. It has, moreover, been shown that this substance, which is obtained from the culture of Löffler's bacillus in the laboratory on a large scale, is also elaborated in the bodies of the infected animals, and can be obtained from them in a state of even greater toxical activity than from the culture, the fatal dose being one-fifth of a milligramme; with reference to which fact it is important to notice that what you actually weigh is not the disease-producing zyme itself, but

[13] The case was one of frost-bite, in which tetanus had supervened three or four weeks after the exposure. The disease was communicated in the first instance to a guinea-pig by the subcutaneous insertion of a fragment of dead skin. Nicolaier: Beitr. zur Aetiologie des Wundstarrkrampfes. Inaug. Diss. Göttingen, 1885. Carle and Rattone: Studio Sperimentale sull' Etiologia del Tetano. Giorn. del R. Accad. d. Med. di Torino, Marzo, 1884. Ref. from Baumgarten.)

[14] Brieger u. Fraenkel: Untersuchungen ueber Bacteriengifte (Berliner k. Wochenschrift, 1890, pp. 241 and 1133.)

[15] See Wassermann u. Proskauer, Deutsche m. Wosh., vol. xvii, p. 583. (April, 1891).

merely the proteid body, to which it is attached by bonds which are very easily broken. I need scarcely say that it is this instability which constitutes the frightful difficulty of investigations of the kind we are now considering.

Let me now, in conclusion, bring before you the sum of what we have learned from the examples we have had before us—tuberculosis, typhoid fever, pneumonia, tetanus, and diphtheria. The question we have put before us in respect of each of the five diseases has been, How does the supposed cause produce the effect attributed to it? The answers have been as different as the diseases. Some morbific agents we have found to act mainly biotically—i.e., by virtue of their endowments as living organisms; others chiefly toxically—i.e., by virtue of the "toxines" which they produce. Thus in splenic fever, and in a different sense in tuberculosis, the morbific action is pre-eminently biotic; in diphtheria and tetanus pre-eminently toxic—i.e., the *nexus* between the morbific agent and the morbid process is in the one case dissemination, in the other diffusion. In both cases a fatal influence spreads from a focus of infection, but in splenic fever the spread is by the multiplication and dispersion of myriads of bacilli, in the other by the slow contamination of the organism by a poison, which it is convenient to call provisionally toxin, though perhaps a proteid, and certainly pre-eminently colloidal. We might, therefore, classify infective diseases in line, placing splenic fever at one end, tetanus at the opposite end, and the others in intermediate positions, according to the relative predominance of the toxic or biotic element in the *modus operandi* of the microphytic agent. In such an arrangement we should have to bear in mind that the two elements are not equally essential—that every morbific microphyte acts primarily toxically—i.e., that without toxical power no microphyte could live. Even in the case of splenic fever, we have evidence that mitigated bacilli do not multiply and are not disseminated in the bodies of susceptible animals—a fact which seems plainly to indicate that the reason why virulent bacilli do multiply is that, by their direct action on the tissues, and by thus surrounding themselves with an environment in which they can live, they acquire sufficient vigour to be aggressive. As regards the restriction of its power of multiplication and dissemination, the tetanus bacillus is comparable to the mitigated anthrax bacillus, but with this important difference—that it is able, without multiplication, to produce poison enough to destroy life.

Another point relating to causal relation between microphytes and the diseases they produce is that of the possible substitution of one species for another. Our studies of to-day, especially if taken in connexion with what we have learned in previous lectures as regards other microphytes, lead to the conclusion that in certain instances the same kind of infective action may be exercised, and consequently the same morbid process be initiated, by microphytes, of different species—i.e., that in these cases, although the intervention of some microphyte is essential in order to bring the morbific agent into existence, one may act as surrogate to another. In this respect I should be inclined to place tuberculosis, splenic fever, relapsing fever, and tetanus on one side of a line, and pneumonia, diphtheria, and scarlatina on the other. Suppuration we know *can* be produced abiotically, and it has been shown that the most characteristic localised inflammations, those which exhibit most of the specific character—such, for example, as cerebro-spinal meningitis, median otitis, and osteo-myelitis—may each of them be generated by more than one species of microphyte. It seems probable that croupous pneumonia, when it assumes the epidemic character, may be occasioned by microphytes other than the pneumococcus, and it has not yet been proved that even in diphtheria the bacillus of Löffler may not be replaced by some other.

Time compels me to bring my unfinished task to a conclusion. The lines of inquiry which I have endeavoured to follow in these lectures have been those along which I believe that the advance of knowledge of the causation of acute diseases will, in the near future, take place. I have endeavoured to show that, although the first qualification of a disease-producing microphyte is the faculty of living and multiplying in the living tissue, the researches of recent years have taught us that its poisonousness is even more essential than its adaptedness to a living nutritive medium; so much so that the damage which it thereby inflicts on its living environment is a means by which it modifies that environment for its own advantage. We have further seen that the contest which takes place in the organism between invading microphytes and the living elements of the invaded territory, is not a hand-to-hand fight between tissue elements and microphytes, but one in which both act, so to speak, at a certain distance, and that it is one in which the weapons are poisons and counter-poisons, toxines and anti-toxines, words which merely imply that the physiological endowments of these bodies are antagonistic. The question of infection, therefore, has become, as many clear-sighted pathologists foresaw that it necessarily would, more and more chemical, *less* morphological. But in saying this we must carefully guard against its being implied that any progress in the discovery of the chemical agencies by which diseases are produced and prevented, can be made without the bacteriological method, or that it is in the least less necessary than before that all who intend to be pathologists should perfect themselves in the technique which Dr. Koch *created*. If, therefore, the questions which at this moment concern us appear to be chiefly chemical, it means only that we have got from the form to the substance, from the agent to the action. Pathologists were never phytologists, and do not pretend now to be chemists. We care for microphytes not as botanical species, but as makers of toxines, and for toxines not as chemical compounds, but as producers of disease. For although, as not being organised, we must call them chemical, our chemical knowledge respecting them is so indefinite and inconsiderable that the chemist would scarcely recognise their existence. They possess certain nosogenic or alexeteric properties which appear to attach themselves to proteids; but of their chemical nature the pathologist is able to say even less than the physiologist can of the so-called enzymes.

I must not end without saying a word as to the future of pathology in this country, and particularly in this great metropolitan school of medicine. Unfortunately, it must be admitted, whether we like it or not, that hitherto we have been too much contented to let other men labour, and complacently to enter into their labours. I have in the course of these lectures been disagreeably conscious—and it must have been equally apparent to those who have listened to me—that the names I have had occasion to refer to as of men who have achieved the recent progress which it has been my business to record, few—far too few—have been names of our countrymen. Happily the promise of the future is more encouraging than the record of the past. We have now, if not a host, a considerable body of men who know their business and how to do it—men young enough not to have lost those exact habits of observation acquired by previous studies in physics and chemistry and in physiology, yet old enough to take a living interest in medicine—men with a very definite understanding of what pathology means and how it must be advanced—namely, by that same method which Harvey commended to us so emphatically over two hundred years ago: the searching out of the secrets of nature by way of experiment. In the part it has taken in the building and establishment of a laboratory for researches in pathology and pharmacology this College has given substantial proof of its readiness to follow Harvey's counsel. It could not have raised a better monument to his memory. The success of the laboratory is already assured. Small as it is, it has already become a centre of pathological work—a focus whence a salutary influence in the direction of real progress is spreading in every direction. Nor can it be doubted that when the advance of the next ten years has to be chronicled, it will be looked back to as the beginning of a new era.

THE VACCINATION REPORT.—It is stated that the Vaccination Commissioners will either take steps to issue an interim report, or will so expedite their proceedings as to make the comparatively early conclusion of their work a probability.

THE ALLEGED LEAD POISONING AT WAKEFIELD.—The Waterworks Committee of the Wakefield Corporation have decided that Dr. Meymott Tidy and another expert shall be engaged to thoroughly investigate the question of alleged lead-poisoning from the use of the water supplied from the corporation works, with the object of ascertaining the cause, and applying such remedial measures as the corporation may be advised to be necessary and expedient.

PULSATIONS AND MURMURS IN THE GREAT VEINS OF THE NECK:

THEIR PHYSIOLOGICAL AND CLINICAL SIGNIFICANCE.

BY SYDNEY RINGER, M.D., F.R.S.,
AND
HARRINGTON SAINSBURY, M.D., M.R.C.P.

THIS subject has received treatment at the hands of many distinguished observers, but in spite of, perhaps in part because of, this it is still obscure or debatable on many points both as to fact and interpretation of fact. Perhaps one reason for the want of clearness which exists is the insufficient separation of the two phenomena, pulsations and bruits. These must be considered each by itself, for the conditions of origin of each are in many instances antagonistic, if not exclusive. We propose in the present paper to deal only with pulsations.

It will be helpful in the first instance to consider briefly the data, anatomical and physiological, of the problem. The veins which chiefly concern us are the external and internal jugulars. The former occupies a superficial position, which it is not necessary to define further till at its lower end, just above the clavicle and outside the posterior border of the sterno-mastoid, it pierces the superficial fascia and joins the subclavian vein "usually from half to three-quarters of an inch from the commencement of the brachio-cephalic."[1] To the margins of the opening in the fascia, through which it passes, it is firmly attached, and thereby is unable to collapse.[2] There is no artery in proximity to it throughout its superficial course. The internal jugular lies deeply alongside of the internal and common carotids, passing in its downward course gradually from behind the artery to its outer side: in its lateral position it overlaps slightly the artery. Just above its junction with the subclavian it swells out into the bulb; this is more marked on the right side. By fascial attachment the bulb is prevented from more than partial collapse. Note in the case of this vein the juxtaposition of the artery. Projecting into the lumen of the veins are valves, whose free edges point towards the heart. Two such guard the extreme lower end of the internal jugular vein; their position, higher or lower, may, however, vary within from half to three-quarters of an inch, or even one inch from the mouth.[3] Similar valves guard the mouth of the external jugular, being placed exactly at the mouth or a little way within it (Struthers). Another pair of valves is placed in the course of the external jugular, and is situate usually at about an inch and a half above the clavicle. The position of this valve is of importance in bleeding, for blood as a rule *regurgitates* freely from a wound below, but not from above, this valve (Struthers). The subclavian vein is guarded by valves just before the external jugular joins it, hence the external jugular is protected against regurgitation by its own valves alone. The subclavian and internal and external jugular veins having joined to form the innominate, this latter enters the chest, keeping about the direction of the internal jugular on the right side, but on the left side making a large open angle with this direction. The two innominates having joined in the superior vena cava, this vein continues to the heart the direction of the right internal jugular. The superior vena cava in its whole course lies within the chest, and is subject therefore to the intra-thoracic pressure conditions. The proximity of the aorta, and of the great branches from its arch, to the superior vena cava and its great tributaries must be borne in mind.[4] The subclavian artery rises above, and lies external to, the subclavian vein in its course at the root of the neck. Along these channels the blood flows in a more or less full stream into the right auricle. The flow, however, is not an even one, for the outside conditions at the point of entry of the blood into the heart and along the intra-thoracic course of the great venous trunks are not constant: First, on account of the respiratory movements of the chest, the pressure upon the auricle and venous trunks within the chest will vary, and accordingly the flow along channels of greater or less compression[5] will take place in less full or fuller stream: less full during expiration, fuller during inspiration. Next, on account of movements of the heart, auricular and ventricular, the cavities for the reception of the blood will be now relatively open, now relatively closed, the stream of blood at one time entering freely, at another time gathering slowly, behind the point of obstruction. For a double reason, therefore, respiratory and cardiac, the venous blood will flow into the chest in a remittent stream. The blood which leaves the chest by the great arteries in a succession of jets flows under normal circumstances in an even current through the capillaries and into the veins;[6] it again becomes remittent in its flow as it approaches the chest. The respiratory remittence will have a different rhythm from the cardiac, the curve of the former being superposed, as it were, upon the latter.[7] The moving force causing the venous current is a *vis a tergo*; this meets with a varying amount of opposition within the chest, but, as a rule, in health this opposition does not attain any positive value, either on the part of the respiratory or cardiac movements—i.e., the obstruction within the chest does not exceed the force urging on the venous blood. In exceptional and temporary states in health, and still more frequently in disease, there may, however, arise within the chest on both counts, respiratory and cardiac, such excess of pressure; and then the question of the reversal of the current will arise. Note, then, that in health under ordinary conditions the remittent action, if sufficiently strongly marked to give a visible rise and fall in the veins, will show itself as a pulsation, the beat of which will be caused by a *vis a tergo*; but that in exceptional states in health, and more markedly in disease, such pulsation may be caused by a *vis a fronte*. We shall see that important time relations mark theoretically the pulsations, according as these are direct or regurgitant. Are these available clinically, and what forms of pulsation do we meet with actually in the veins? These questions we shall now consider.

We may first say a word on over-fulness of veins. This will take place whenever *relative* obstruction arises within the chest. We are familiar with this both in health and disease; as examples of the latter we may instance pressure, as by a tumour, upon the venous trunks, tricuspid stenosis, pulmonary obstruction, disease of the mitral valve. In all cases in which the obstruction is in or beyond the pulmonary artery, venous fulness means fulness of the right heart. Posture affects greatly the fulness of the veins, as we know well in the case of the dependent parts of the body; in the case of the neck veins it also is of marked influence, and to show this we have only to make the patient lie flat or with the head lowered below the horizontal to note the distension of the veins which follows.

It is the full vein in which pulsations become manifest, and we may therefore consider now the different forms of pulsation which are observed in the veins.

1. Venous pulsation of cardiac rhythm may be the result of the *transmission across the capillaries* of the intermittent impulses of the left ventricle. This is caused by an opening up of the smaller vessels, whereby the elastic resistance is so much diminished that the jerky movement in the larger arteries does not undergo complete transformation into an uniform rate of movement. This opening up of the smaller arterial vessels effects, of course, a local or general lowering of tension. Numerous observers have recorded examples of this—e.g., Sir W. Jenner,[8] Martin Solon, Velpeau, Beau, and others in France, also Graves and King in the United Kingdom,[9] further Anke and Quincke.[10] This form of pulsation has been clinically observed chiefly in the extremities, but after section of the cervical sympathetic in animals it

[1] Struthers: Jugular Venesection in Asphyxia. Ed. Med. Jour., 1856.
[2] Henle: Handbuch der Gefässlehre, p. 365.
[3] Vide Struthers and Henle, op. cit. Consult these authors also for some variations in the form and disposition of the valves.
[4] See the explanation given by Friedreich as to certain systolic pulsations in the veins.
[5] During expiration, forced or prolonged, the minus pressure within the chest may actually be exchanged for a positive pressure.
[6] An exception to this statement holds in the case of the veins leaving the cranium. Owing to the rigidity of the cranial walls the intermittent inflow necessitates an intermittent outflow, or at least the presence of a pulse in these veins. Léon Frédericq: Dictionnaire Encyclopédique des Sciences Médicales, 5me série, vol. ii., art. Veines, p. 654.
[7] See fig. by Bamberger, Würzburger Med. Zeitschr., 1863: Beobachtungen über den Venenpuls.
[8] Walshe on Diseases of the Heart, Fourth Edition, p. 139.
[9] Léon Frédericq, op. cit., p. 645.
[10] Franz Riegel: Ueber die diagnostische Bedeutung des Venenpulses. Volkmann's Sammlung klinischer Vorträge (Innere Medicin), No. 78, p. 2053.

may be demonstrated in the jugular veins.[11] According to King[12] the earliest notice of this form of pulsation is quoted by Haller.[13]

2. Another form of pulsation with cardiac rhythm, mentioned by Fredericq, is that of *the veins issuing from the cranial cavity*. This has been already referred to in a foot-note.[14] The pulsation in this case is rather of the nature of a transmission by the brain *en masse*, for this organ, played upon by the intermittent strokes of the arterial jets, and much limited in its powers of expansion, transmits those strokes to the issuing venous blood. The blood can only squeeze itself into the rigid cranial box by the ejection at the same moment of a certain quantity of blood.[15] The mechanism here, then, is of a different nature to that of transmission across the capillaries. Whether this form of pulsation has a clinical as well as physiological value we do not gather from Fredericq. We are inclined to doubt whether pulsations visible at the root of the neck ever bear this interpretation, though theoretically they might.

3. Pulsation may be derived *from an adjacent artery*, the vein itself being wholly passive. This form of transmitted impulse is well recognised, and does not call for further description; its rhythm is of course cardiac.

In these three varieties of pulsation the onward flow of blood in the veins would be unaffected or at least not hindered, and in the first two the *vis a tergo* is the obvious efficient cause.

4. Pulsation in the veins at the root of the neck extending a variable distance up the neck, and *owning as cause intra-thoracic changes of pressure*. (*a*) Is such recognisable in health? Riegel asserts very positively that in animals, normally, there is always a jugular pulse, and that other veins may show the like. He also states that, physiologically, there may be such a pulse in man.[16] Friedreich in 1865, Potain in 1868, Mosso in 1878, Riegel and Gottwalt in 1881, and François Franck in 1882, described a venous pulse in the neck, due to intra-thoracic changes, as occurring or liable to occur in health.[17] With regard to Friedreich it appears that he observed this pulsation in cases in which he could find no abnormal state of the heart, but he was still inclined to view the pulsation as pathological. In Riegel's experiments on animals the external jugular veins were laid bare, and clearly under such circumstances a much feebler pulsation would be visible than if the vein had been examined through the teguments as must happen for man. This is his explanation of the occasional nature of the visible pulsation in the veins of healthy men and women as against its constant occurrence in animals. Another observer, Gottwalt, described at about the same time as Riegel the constant presence of a venous pulse in the jugular veins of healthy animals.[18] Landois[19] describes venous pulsation of this kind in the jugular veins as physiological. The evidence, then, is strong in favour of a *normal* jugular pulse in man, the result of intra-thoracic changes; and if it is not commonly visible, we must take this to be the result of its general feebleness and the masking effect of the integuments.[20]—(*b*) Passing from health to disease, we find quite frequently pulsating jugular veins in thoracic disorder, accompanied by overloaded right ventricle; this is universally admitted. It is these latter pulsations (*a* and *b*) which now concern us, and it becomes important for us to determine the distinguishing characteristics, if there be such, of these two pulsations, the normal and the pathological. At the outset we may with advantage indicate the distinctions in general which exist between arterial pulsation and venous pulsation. First, as to site, we find that arterial pulsation shows itself in the neck in the episternal fossa and along the anterior borders of the sterno-mastoids,[21] whilst venous pulsation in the internal jugular is to be noted outside this course, affecting in particular, in the middle third of the neck, the posterior part of the sterno-mastoids.[22] The external jugular having no accompanying artery, there can be no question as to any pulsation present in it. Next, as to form, the arterial pulse is much more limited along its course, suggesting, the vibration of a cord which is being pulled upon, rather than the swelling out of a vessel; it is more sudden also in character. On the other hand, the venous pulse of the internal jugular is much broader and larger; it suggests a swelling out rather than a forcible vibration; it is a less sudden movement. The arterial pulse, of course, travels up the neck, but no evidence of this appears to the eye, whilst in the internal jugular, and in particular in the superficial veins—e.g., the external jugular,—the suggestion of a filling from below is in many cases very distinct. Venous pulsation, moreover, shows frequently two or more strokes; it is oscillatory; arterial pulsation does not show this. Lastly, posture has very little effect on the visibility or fulness of arteries, whilst it has much influence on veins.[23] On these lines we shall readily distinguish pulsation in the vein from that in the artery. Having localised it in the vein, we proceed to the question, Is it pathological or physiological? Posture, we have remarked, has great influence on the fulness of veins, and, further, that it is the full vein which shows pulsation best, but this will apply to both physiological and pathological cases; in each class recumbency will bring out the pulsation. In physiological cases, however, the difference in the fulness of the vein in the upright and recumbent postures will be more notable; indeed, in such, when upright there will probably be no fulness of the veins at all, whilst on lying flat this may become very evident. Posture, therefore, though acting in the same sense in both classes of cases, will in general have more effect in physiological than in morbid states. The site of the pulsation, whether limited to the internal jugular at the root of the neck, "pulsation of the bulb," or extending for a longer or shorter distance up the neck,[24] will not help us much, though no doubt a pulsation extending into the upper half of the neck or reaching to the angle of the jaw will suggest disease. The form of the pulsation will be of value to this extent, that the more forcible it is to the eye, the more sudden in character, the more likely is disease—i.e., tricuspid regurgitation. Pulsation belonging to this category of cases may be distinctly palpable (see Bamberger). But even given tricuspid regurgitation, characters such as these must depend upon the vigour of the ventricular contraction, and this latter may fail in the extreme stages of right heart distension. We are inclined to hold, concerning the form of the pulsation, that it is more oscillatory in physiological cases. What about "undulation," so called? The term is employed by some authorities to describe in particular the lesser forms of venous pulsation, including the physiological cases.[25] We hold with Riegel that no good object is attained by the use of this term. Undulation is simply wavy pulsation, and no safe distinction may be made on this character.

Thus, then, neither in the form of the pulsation, nor in its site, nor in the effects of posture upon it, have we any reliable criteria for determining whether it be of health or disease. In what other directions shall we look for an answer to this question?—If the veins of the neck, especially the external jugular, of a chlorotic woman be carefully watched in the recumbent posture, with the head slightly raised or not raised at all, it will frequently be determinable with ease that the filling of the vein, its beat, precedes slightly the carotid beat felt on the opposite side of the neck; perhaps it will be found even more readily that the collapse of the vein falls in exactly

[11] Fredericq, op. cit., p. 657.

[12] On the Safety-valve Function in the Right Ventricle of the Human Heart. Guy's Hospital Reports, 1857, vol. ii., p. 111.

[13] Elementa Physiologiæ, t. ii., p. 256.

[14] See also p. 657, op. cit.

[15] No doubt the communication between the cranium and spinal canal is sufficiently free to allow of expansion of the brain by expulsion of some of the cerebral fluid into the less rigidly confined spinal canal.

[16] Op. cit. [17] Fredericq, op. cit., p. 658.

[18] Pflüger's Archiv, Bd. xxv., p. 1 *et seq.* Gottwalt infers the constant presence of a normal pulse in man; he explains, like Riegel, its non-visibility in the majority of cases.

[19] Lehrbuch der Physiol. des Menschen, 6te Aufl., p. 188.

[20] Riegel, op. cit., p. 2061.

[21] We need not consider the pulsation in the subclavian arteries; this is to be looked for external to, and higher up than, pulsation in the subclavian vein.

[22] In cases of very great distension of the jugular veins—e.g., of marked tricuspid regurgitation—the internal jugulars may swell out in the recumbent posture, and appear in front of the artery towards the root of the neck. One of our cases with enormous dilatation of the heart and huge pulsating liver showed this extremely well.

[23] The high pressure in the arteries makes these comparatively independent of changes of posture.

[24] Bamberger, who employs these terms, pulsation of the bulb and pulsation of the vein, did not use them to differentiate normal from pathological pulsation; indeed, he only recognised an extreme pathological form of the phenomenon as the "venous pulse," and dismissed summarily all other less pronounced movements in the veins as "unklar und unbestimmt" (Beobachtungen ueber den Venenpuls, Würzb. Med. Zeitschr., 1863). Friedreich laid no stress upon the limitation of the pulsation as an aid to diagnosis (Handbuch der Speciellen Pathologie u. Therapie, Krankheiten des Herzens, 1867, second edition, vol. v., pt. 2).

[25] We note that Liebermeister in his recent text-book on the Pathology and Therapy of Chest Disorders (1891) retains this term. See also Balfour, Diseases of the Heart, second edition, 1882, pp. 5 and 6.

with the carotid impulse. With each cardiac cycle this sequence is repeated—presystolic filling, systolic collapse. In some forty cases of our own, including pathological cases, though chiefly consisting of anæmias without heart or lung mischief, the systolic collapse was noted in eleven certainly, in two with less certainty. Excluding six or seven cases of actual chest disease, and a few in which no note is recorded about pulsation, the proportion in which systolic venous collapse is observed in marked anæmia without thoracic disease becomes a considerable one, and probably is little under one-half. The subjects were mostly lying quite flat when this was noted. M. Parrot,[26] alluding to the pulse in the external jugular in anæmia (recumbent posture), says (p. 660) it is presystolic in time, and in two of his cases on p. 663 he makes the note that the venous subsidence corresponds in time with the arterial shock. M. Potain,[27] dealing with similar cases, agrees with M. Parrot in placing one elevation of the vein in the presystole and one collapse of the vein immediately after it; this collapse, on his tracings, corresponds very nearly with the carotid impulse, still more nearly with the ventricular apex thrust. The complication which he introduces is that he describes a double stroke to the venous oscillation, therefore also a double collapse. Note, however, that he records a presystolic rise and a collapse which, if it does not actually fall in with the first part of the systole, would come very close to it. Potain's second rise falls during the systole of the ventricle; his second collapse in the early part of the ventricular diastole. Friedreich,[28] speaking of similar cases, says that, if a single stroke occurs, it is presystolic; if, as not rarely happens, the stroke is double, the second stroke is systolic. Thus in substance he agrees with Potain, though his interpretation of the second stroke is very different. When we come now to examine the very careful work of Riegel,[29] we find that his tracings obtained from the veins of normal animals show a slow rise of the curve culminating in the presystole, a sharp fall (collapse of the vein) occurring in the systole. This is very definitely shown by simultaneous tracings taken by means of manometers in connexion with the jugular vein and carotid artery, the pens of the two levers being placed directly under each other in the same vertical line. The venous curve is here seen to resemble closely the arterial curve, but it is reversed, the rise being dicrotic, the fall monocrotic. Gottwalt,[30] working experimentally in a different way to Riegel—by means, viz., of a delicate tambour arrangement—obtained curves which at first sight do not show much resemblance to Riegel's, but on closer examination there is a decided similarity in the tracings, and they agree essentially in this, that the great wave is presystolic, the great fall systolic. Lastly, François Franck makes the rise of the vein culminate in the presystole, the collapse of the vein systolic; he differs, however, from Riegel in making the down stroke tricrotic.[31]

(To be concluded.)

THE MANDIBULAR TUBERCLE AND DIMPLE.[1]

BY J. BLAND SUTTON, F.R.C.S.

OCCASIONALLY we find on one or both cheeks of children, at a spot varying from two to four centimetres behind the angle of the mouth, a small tubercle rarely exceeding a rape-seed in size. A typical specimen is shown in Fig. 1. The patient is an intelligent girl of eleven years. On examining the interior of the mouth, I found in the buccal mucous membrane, at a spot exactly corresponding to the tubercle on the outside, a circular, slightly depressed cicatrix. The tubercle had been noticed "ever since the child was born." She had no other congenital defects. This case is exceptional in that the ears are of normal size and of goodly shape.

The next case is in striking contrast. The patient, a girl of seven years, was mentally obtuse, and presented on the right cheek, three centimetres behind the angle of the mouth, a slight depression in the skin, surmounted by a small cutaneous nodule. The depression was three millimetres in depth. In the buccal mucous membrane, at a spot corresponding to the depression, there was a distinct white cicatrix five millimetres in diameter. On the left cheek, four centimetres behind the angle of the mouth, there was also a small cutaneous nodule. The pinna was very defective, and the entrance to the auditory meatus was covered with skin. On this side there was no cicatrix in the buccal mucous membrane. This case I described in the Transactions of the Odontological Society of Great Britain (December, 1887).

FIG. 1.

The head of a girl, showing a small mandibular tubercle.

The third case was a lad under the care of Mr. Cowell, who was so good as to give me an opportunity of examining it. The patient, a lad of seventeen years, had a well-marked coloboma of the left upper eyelid and two accessory nodules in relation with the left tragus. In addition, he had on the left cheek, four centimetres behind the angle of the mouth, a cutaneous nodule as shown in Fig. 3. I at once examined the buccal mucous membrane, and found, at a spot corresponding to the tubercle, a deep and puckered recess. Full details of the abnormality of the eye and eyelid have been published by Mr. Cowell in the Ophthalmological Society's Transactions for 1891.

FIG. 2.

The head of a girl with a mandibular tubercle associated with a malformed auricle.

The fourth specimen occurred in a stillborn fœtus, sent to

[26] Archives Générales de Médecine, 1867, p. 649 *et seq.*
[27] Mémoires de la Société Médicale des Hôpitaux de Paris, Mai 24me, 1867. [28] Op. cit., p. 47.
[29] Op. cit., p. 2064 *et seq.* [30] Op. cit.
[31] See Fredericq, op. cit., p. 659.

[1] Paper read at the Pathological Society on Nov. 17th.

me by Dr. Battisa. Hanging pendulous from the right cheek, two centimetres behind the angle of the mouth, was a small nodule, the size of a rape-seed; immediately behind this was a pedunculated pyriform body, eight millimetres long.

FIG. 3.

The face of a lad with a well-marked mandibular tubercle, malformation of the tragus, and coloboma of the eyelid. (Mr. Cowell's case

The corresponding pinna presented a supernumerary tragus (Fig. 4). The buccal mucous membrane was quite normal in appearance. A portion of the tubercle was removed for microscopical examination. It consisted of dense connective

FIG. 4.

The right side of the head of a fœtus, showing a large mandibular tubercle.

tissue traversed by bloodvessels and covered with skin beset with lanugo, and richly supplied with sweat-glands and sebaceous glands of large size. Thus it was structurally a small dermoid tumour. The left cheek and pinna were quite normal. The fœtus had a large spina bifida (meningo-myelocele) in the lumbar region.

In connexion with this subject, it is necessary to point out that in many mammals, notably dogs, there frequently exists posterior to and in a line with each angle of the mouth a small cutaneous nodule, from which two or more stout vibrissæ project. These nodules occupy positions identical with those on the cheeks of the children described n this communication; their general appearance is shown in the accompanying sketch of the head of a black-and-tan terrier (Fig. 5). In many breeds of dogs the presence of such

FIG. 5.

The head of "Pierrot," a black-and-tan terrier, showing the mandibular tubercle with its vibrissæ.

nodules is the rule, and I am of opinion that they have an embryological significance. So far I have not succeeded in finding a cicatrix in the buccal mucous membrane corresponding to the nodule, as in the case of children. A pair of similar nodules with vibrissæ often exist in the submaxillary region of many dogs, midway between the symphysis and body of the hyoid, in close juxtaposition on each side of the median line, and in the line of the median fissure

FIG. 6.

The mandibular and other facial fissures of an early human embryo. (Modified from His.

which, in the embryo traverses this region, separating the mandibular bars.

It is not difficult to find a satisfactory explanation of the buccal tubercles, recesses, and cicatrices. The mandibular fissure or cleft of the mammalian embryo is relatively more extensive than the opening of the mouth, which in the adult represents it. The general appearance of the embryonic mandibular cleft and the facial fissures radiating therefrom is shown in the now familiar sketch (Fig. 6). In fish the whole of the mandibular fissure forms, in the adult, the

gape; persistence of the fissure throughout its whole length in man gives rise to the malformation termed *macrostoma*, whereas excessive coalescence of the dorsal (posterior in the adult) extremities of the cleft produces *microstoma*. Imperfect closure of those sections which normally coalesce produces such faults as recesses, sinuses, minute dermoids, and tubercles. Thus it comes to pass that these imperfections in the line of the mandibular fissure have a morphological significance. I am unaware that any previous observer has attempted to account for the existence of these curious tubercles, yet many must have observed them, and as this is probably the first time that a description of these bodies has been accorded a hearing before a learned Society, I will venture to mark the occasion by conferring upon them the dignity of a title, and hope that these interesting nodules will be henceforward known as *mandibular tubercles*.

TWO CASES OF TRAUMATIC EPILEPSY TREATED BY TREPHINING.

BY ALEXANDER MILES, M.D., F.R.C.S. EDIN.,
SYME SURGICAL FELLOW.

(*Concluded from page 1161.*)

CASE 2.—John E——, aged thirty-five, a miner and native of Durham, was admitted to Ward 31, Royal Infirmary, Edinburgh, under the care of Dr. Wyllie, on May 18th, 1889, complaining of dizziness and vomiting, which had lasted for eight days previously to his seeking admission. He states that four and a half years ago he had a quarrel with a fellow-workman, from which he dates his present illness. This quarrel culminated in a fight, which was brought to a close by patient's antagonist striking him on the head with a large stone. This blow did not render him insensible, but he suffered so much from the effects of it that he could not return to work for over a week, and when he did he was "very weak." The exact manner in which he was affected was not very evident from his story. Six months later he again received an injury to his head, this time being struck with a bottle, which cut his scalp. The wound did not heal until he had been treated in Sunderland Infirmary, which he entered three weeks after receiving the injury. As in the former case, he was not rendered unconscious. The patient was at one time a professional pugilist, and has so many scars on his head that he is unable to identify the one last referred to. One of the cicatrices is markedly depressed.

Condition on admission.—Patient is a well-developed man of medium height; his face wears a rather anxious expression, and there is continual twitching of his facial muscles. The muscles retract the angles of the mouth, as if the patient were trying to say "C" distinctly; he then protrudes his lips. He has great difficulty in putting out his tongue, and he quickly draws it back. There is no paralysis of lingual muscles, but the spasmodic action of these causes some indistinctness in articulation. These symptoms came on about a year subsequent to his injury with the bottle. The muscles of the external ears, and the occipito-frontalis contract from time to time. All his movements are exaggerated when he is watched, but they are suspended during sleep. He can pick up a toothpick, but not a pin. Twitching movements occur at the metacarpo-phalangeal joints; there is occasional flexion or extension of the wrist joints, but never any movements of the elbow or shoulder. The muscular sense is unimpaired. When standing, his toes twitch, those of the right foot especially. He complains of dizziness and headache, which sometimes come on with vomiting. There are twitchings of the eyelids, but no interference with vision. The patient seems to be able to control the movements slightly, as he can carry a glass of water to his mouth without spilling any. There is no tenderness on pressing over the depressed cicatrix on the scalp. After consultation with Mr. Miller, it was decided to recommend an operation, and this was performed on June 21st.

Operation.—Chloroform was administered, and a V-shaped incision was made over the depression on the left side, a little above and in front of the ear. The flap of skin was reflected, and the temporal fascia crucially opened. On exposing the temporal muscle, it was seen to be divided into two parts by a dense adherent cicatrix, which condition had simulated a depression of the skull. The trephine was applied with its centre over this cicatrix, and on removing the circle it was found to be normal, although somewhat thicker than usual. There was no depression. Two branches of the middle meningeal artery were seen on the surface of the dura mater. The dura mater was punctured with a small trocar and cannula, and about an ounce of clear fluid drawn off. The dura did not bulge; it was thickened at one part. The vessels on its surface were then secured with double ligatures and divided, and a crucial incision was made into it. This exposed a bluish translucent cyst wall, with a large vein coursing across it. An attempt was made to remove a part of the wall of this cyst, but was unsuccessful on account of its extreme thinness. There was a depression on the surface of the brain, which measured about half an inch in every direction, but the brain tissue round about seemed healthy. The bone was not replaced, and the wound was dressed with iodoform gauze.

June 21st: After recovering from the effects of the chloroform the patient became very restless, complained of great thirst, and was loud in his demands for ice and water. The jerking movements went on as before, and affected his tongue very much, making his articulation indistinct. He refused to do what he was told, and was generally difficult to manage. In the evening he fell asleep, and during that time the spasms were less marked.—22nd: During the night the patient's restlessness and spasms still continued; and during the day the jerkings were worse than they had ever been, his speech especially being much interfered with. In the afternoon a drachm and a half of paraldehyde was given, and after this he had some snatches of sleep, during which the spasms stopped entirely. At 8.30 P.M. two drachms of paraldehyde were given, which only served to increase his excitement. He had to be removed to the ward for delirious patients.—23rd: At 1.30 A.M he was still very noisy. One-eightieth of a grain of hyoscine administered hypodermically quieted him for an hour. At 3.30 P.M. the wound was dressed; looking well. Hyoscine repeated. Slept for two hours.—24th: Much quieter. Speaks better.—25th: Spasms not so constant, but seem to be "altogether on a larger scale."—26th: Much better to-day. Spasms only occur now and again when at rest, but become worse when he is spoken to. During sleep they are absent. Speaks much better.—July 1st: Since last note patient has improved considerably, but spasms are still present, especially when he becomes excited.—5th: During sleep it was observed that he lay quiet for a time, and then had severe jerkings, as if a sort of explosion of nerve force took place. Got up for two hours to-day. Wound healed.—15th: Jerkings now very marked during sleep, and also when much excited.—19th: The patient has been going out every day for some time. He walks fairly well, and his articulation is pretty good. The explosions already referred to as occurring during sleep are very striking, the whole body being sometimes thrown into violent action.—On the 20th he went home under the care of his brother.

On Feb. 12th, 1890, the patient was admitted to the Crichton Royal Institution, Dumfries, and for the following notes of his condition then I am indebted to Dr. Rutherford and Dr. G. R. Wilson.

J. E——, aged thirty-six, single, miner. Was never in the asylum before. Not suicidal, somewhat dangerous. Has been insane since a few days before admission. He had been violent, had stood naked in the street, and had threatened to kill his brother. His sense of well-being is increased, and he laughs without apparent cause. He is a somewhat pale, unhealthy-looking man, with an unintelligent expression and limited powers of conversation.

Examination of nervous system.—Face is slightly asymmetrical, and the right angle of the mouth droops a little, the naso-labial fold being more marked on the left side. The acts of frowning, raising the eyebrows, tightly closing the eyelids, and showing the teeth are all imperfectly performed, the muscles of the right side being most affected. He can close the left eye alone, but not the right. Twitching of the right angle of the mouth occurs every second with occasional intermissions. The left angle twitches much less than the right. There are in addition occasional spasmodic contractions of the occipito-frontalis and external ear muscles, also more marked on right side. The lips are frequently protruded "and smacked." Tactile sense is good all over the face. The lower jaw moves in the mesial line, and the masseters and temporal muscles act

equally on the two sides. There is some difficulty in opening the mouth *when he tries to do it*, but none when it is done automatically. His attempts to open the mouth seem to increase the muscular twitchings. The tongue is protruded mesially, exhibits no tremor, and can only be kept out for a very short time; inside the mouth it is moved and rolled about in an irregular manner. The left side of the palate is, if anything, more arched in saying "Ah," but this is not marked. The four excursions of the head are done imperfectly; they can be done passively, but there seems to be some rigidity of the muscles of the neck. The patient cannot perform any act which requires coördination to any extent. Arms: Prickling sensation on the right side, from the shoulder to the wrist, but none on the left side. Tactile sense is good on both arms. He used to be right-handed; but now the grasp of the left hand is the stronger of the two, as are also all the movements at the elbow and shoulder of the left limb, although the power of both is fairly good. There are constant irregularly coördinated movements of the arms, chiefly at the finger, thumb, and wrist-joints of quite a choreiform nature. If the patient tries to keep the distal joints at rest, these movements occur at the elbow and shoulder joints. All the movements are exaggerated on the right side. In addition, there is occasionally a definite spasmodic movement of opposition of the thumb and right forefinger. (No observation on this point could be made on the other side, as the thumb was absent as a result of accident.) He cannot approximate the tips of the fingers of the two hands, nor can he button his coat or lift a pin from the ground. The muscular sense is normal as to sense of position and direction of movement with eyes shut. Muscularity fair and equal on the two sides. The triceps and wrist-jerks are very much exaggerated, especially on right side, where triceps clonus can be elicited. Rigidity is present in right arm, less marked in left. Trunk: Tactile sense good. Lower abdominal and epigastric reflexes, distinct on left side, slight on right. Legs: Tactile sense good, prickling sensation occasional in right leg below the knee, but not in left. Muscularity fair. Occasional twitchings of toes of both feet, more rarely at ankle-joints, and more marked if movements are attempted. He cannot move the toes without moving the ankles also. The right leg is weaker in all the movements than the left, but is still comparatively strong. Muscular sense is good as to sense of position and direction of movement. He can stand with his feet together and his eyes shut without swaying. He walks as if his legs were stiff. Rigidity is present; the knee-jerks are exaggerated, and ankle-clonus is present in both legs, all being excessive on the right side, in which a knee-clonus is obtained. Organic reflexes: Defecation normal. He says he has lack of power in emptying his bladder. Swallowing normal. Spine normal. Skull: No pain on percussion. A trephine mark exists on the left side, one inch and a half in front of, and two inches above, the external auditory meatus. He states that eleven weeks ago he got a blow with a poker over the left frontal eminence. The special senses are all good, except sight, which is fair, but he says it is worse since the accident with the poker. He never could read. Eyes: No ptosis, ocular paralysis, or nystagmus. Pupils equal, small, and react to light and accommodation. It is difficult to examine the discs on account of the movements of the head. There is no *marked* optic neuritis. He states that he has had syphilis.

Subsequent notes.—March 12th, 1890: Has been on potassium iodide and mercury since February 27th, and now the arms are often at rest when he is sitting quietly in his chair, but if he speaks or attempts to perform movements the jerking commences. Since admission he has been occasionally restless and excited, threatening to "kill the whole world if he didn't get his clothes to go home." Usually he is quiet and harmless. The defective speech seems to be merely indistinctness in articulation of words.—April 1st: Definite improvement in the spasms on mercury and iodide being given in large doses.

On July 4th, 1891, Dr. Rutherford writes: "J. E—— is still in the same condition as when he was admitted. The notes you got about him then will apply to his present state..... Mentally he is weak, but he can answer questions with considerable intelligence, and his memory is fairly good. He tells me (but whether this is true or not I do not know) that he was much benefited by the operation, but that he subsequently got a blow on the head with a poker which brought back his old symptoms."

Remarks.—This case is interesting in view of the fact that, although a distinct pathological lesion was found and, so far as could be, removed, no marked improvement took place in the condition of the patient. Of course it is possible that the pressure of the cyst had damaged the centres over which it was placed beyond the point from which they could recover. Dr. Gunn[1] says that in some cases of trephining for depressed fracture the cause of failure is explained by "the constant irritation having begotten a permanent impression upon the brain and nervous system which remains after the offending point of bone has been removed." And Echeverria[2] quotes a case in which a blood cyst had caused considerable atrophy of the brain over which it pressed, but in spite of this the patient was improved, although not cured, on removal of the contents. On the other hand, Jacobsen refers to a case[3] in which recovery followed the withdrawal of two drachms of fluid from a cyst. Such brain cysts proper are not common, and are to be distinguished from dural cysts, traumatic cysts following depressed fracture, or hæmorrhagic cysts from meningeal hæmorrhage. Dr. Knapp[4] quotes four cases in which trephining was performed, and in three of these the fluid was withdrawn, two recovering and one dying of shock. In the fourth case Mr. McEwen removed the cyst and the patient recovered. In the fatal case of this series it was found post mortem that there were three distinct cysts involving the face, arm, and leg centres, and it is possible that a similar condition may exist in the case I have just referred to.

Edinburgh.

STATISTICS OF EIGHTY-FIVE OPERATIONS FOR STRANGULATED HERNIA IN HOSPITAL PRACTICE.

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IT is a recognised fact that in hospital practice the operation for the relief of strangulated hernia is attended by a high rate of mortality, this being generally due to one of two causes: either (1) the delay which has been allowed to elapse before surgical interference is sought; or (2) the injury which has been previously inflicted on the contents of the hernia by forcible, prolonged, or repeated attempts at taxis. The consequence is that the condition of the bowel is such that it is frequently past recovery, even though the strangulation is relieved immediately after the patient's admission into hospital. This fact is well illustrated by the following statistics of 85 cases of herniotomy, which have been under my care in the Manchester Royal Infirmary during the past twelve years, in almost all of which the operation was performed shortly after admission:—

	No. of cases.	Recovered.	Died.	Mortality.
Femoral	37	22	15	40·5 per cent.
Inguinal	36	22	14	38·8 „
Umbilical	12	3	9	75·0 „
Totals	85	47	38	44·7 per cent.

At first sight the proportion of fatal cases appears to be unusually great, but on comparing the results with those of other large institutions, I find that the average mortality attending herniotomy in hospital practice varies from 32 to 46 per cent., if the three varieties—femoral, inguinal, and umbilical—are taken collectively.

Femoral.—Of the 37 cases of femoral hernia, two occurred in males and 35 in females; 9 between twenty and forty, 17 between forty and sixty, and 11 between sixty and eighty years of age. From the above table it will be seen that 15 terminated fatally. In 1 case the bowel, though otherwise healthy, was found to be ruptured at the time of operation, as the result of taxis previously to admission. In 4 cases, all fatal, where the bowel was distinctly gangrenous, it was opened and left in the sac; in 3 of these the stricture was not divided, in 1 it was divided. In the remaining 10 fatal cases the bowel, though extremely congested, was healthy, and it was therefore returned into the abdomen; in 1 of these it gave way on the seventh day, and there was an

[1] Trans. Amer. Surg. Assoc., vol. i., p. 89.
[2] Archiv. Gén. de Méd., 1878, t. ii., p. 533.
[3] Annals of Surgery, vol. iii.
[4] Boston Medical and Surgical Journal, April 11th, 1889.

escape of fæces from the wound, which continued until death on the fifteenth day. In another case a fæcal fistula formed a few days after the operation, and after being present for some time gradually closed, the patient completely recovering. In 3 of the successful cases, where all the symptoms of strangulation were present, omentum only was found in the sac, thus illustrating the fact that the symptoms produced by strangulation of omentum are indistinguishable from those caused by strangulation of the bowel. In each instance removal of the mass of omentum was followed by immediate subsidence of all symptoms.

Inguinal.—Of the 36 cases of inguinal hernia, 1 occurred in a female and 35 in males; 2 under two years—viz., seven weeks and eighteen months,—2 aged eighteen years, 13 between twenty and forty, 11 between forty and sixty, and 8 between sixty and eighty years of age. From the above table it will be seen that 14 terminated fatally. In 2 of these, where the bowel was gangrenous, it was left in the sac, the stricture being divided; in another the gangrenous portion of intestine was resected.

Umbilical.—The 12 cases of umbilical hernia all occurred in females; 7 between thirty and fifty, and 5 between fifty and seventy years of age. No less than 9 cases terminated fatally, thus illustrating the very high mortality which attends operation in this variety of strangulated hernia. In 9 cases the bowel was sufficiently healthy to admit of its return into the abdomen; in 3 cases, all fatal, portions of gangrenous intestine were resected, the ends of the bowel being brought together in 2 cases by sutures, in 1 by Senn's plates.

Cause of death in the 33 fatal cases.—In 10 the bowel was found to be gangrenous at the time of operation, and in 1 case ruptured as the result of previous attempts at taxis. In the remaining 27 fatal cases the bowel, though more or less congested and tightly constricted, was in a sufficiently healthy condition to allow of its reduction. In 16 of these, where a post-mortem examination was made, the bowel was found to have become gangrenous in 4 cases; in 10 cases it had ulcerated, and perforation had taken place at the line of constriction. In 1 case there were evidences only of peritonitis; in another, where the cause of death was diabetic coma, the bowel itself as well as the adjacent parts were in a healthy state. In 11 cases no post-mortem examination was obtained, and the exact cause of death was therefore not made out.

Method of operating.—In every case the sac was opened, and for some years it has been my custom to perform a radical cure at the time of operation, provided the bowel is in a healthy condition. If, however, its condition is at all doubtful, the neck of the sac is not closed, and the external wound is left partly open, a drainage-tube being inserted in order to provide an outlet for the escape of fæcal matter in case the bowel should give way after its return into the abdominal cavity.

Manchester.

A MEDIÆVAL SPA REVISITED.

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WITHIN twenty minutes' railway journey from Zurich lies, at Baden-on-the-Limmat, one of the most interesting of all the Swiss health resorts, and which, though comparatively little frequented by English valetudinarians, was in its day perhaps the most famous of the mediæval watering-places of Europe. At the present time, however, the Helvetian Baden presents a strong contrast in its aspect and social surroundings with the fashion-thronged, bright, and prosperous German spa of the same name, generally described as the "Queen of watering-places," being, on the contrary, a quiet and somewhat *triste*, although beautifully situated, ancient-looking little town of some four thousand inhabitants. The position of this old walled city is a striking one, being chiefly built on a platform overhanging the ravine through which the Limmat flows. At the south end of the place a curious antique covered bridge crosses the river, and at the opposite extremity are situated, a quarter of a mile below the town, the mineral baths and springs. The principal source issues in a small irregular place formed by the hotels, and immediately in front of the Switzer Hoff Hotel. Nothing can be more uninviting than the appearance of this fountain, the vicinity of which seems to be the receptacle for all the rubbish from the adjacent houses, and the smell of the decomposing vegetable matter rises distinctly over the strong sulphurous odour of the water. The spring itself, which is warm and very gaseous, has a disagreeable saline and sulphuretted taste.

Baden was frequented as a watering-place by the Romans, and numerous relics of this bath-loving people have been found in the environs of the springs. In the middle ages Baden was no less resorted to, and Poggio Bracciolini, the celebrated Roman courtier, scholar, and antiquary of the fifteenth century, has left in his correspondence with Nicolo Niccoli, an interesting sketch of a fashionable watering-place of that day in his "Account of the Swiss Baden" when he visited that spa in 1415. "I write to you," he says, "from these baths, to which I have now come, to try whether they can remove an eruption which has taken place between my fingers, to describe to you the situation of the place and the manners of its inhabitants, together with the customs of the company who resort hither for the benefit of the waters. Much is said by the ancients of the pleasant baths of Puteoli, which were frequented by almost all the people of Rome. But, in my opinion, these boasted baths must yield the palm to the baths of Baden. ..... Baden is a place of considerable opulence, situated in a valley surrounded by mountains, upon a broad and rapid river, which forms a junction with the Rhine about six miles from the town. About half a mile distant, and on the bank of the river, there is a very beautiful range of buildings constructed for the accommodation of the bathers. Those buildings form a square composed of lodging-houses, in which a great number of guests are commodiously entertained. Each lodging-house has its private bath, appropriated to its tenants. The baths are altogether thirty in number, and of these only two are public baths, which are exposed to view on every side, and are frequented by the lower order of people of all ages. I admired the simplicity of those people, who are totally unconscious of any indecorum. The baths belonging to the private lodging-houses are very commodious, and are resorted to by males and females; they are separated by a partition, in which there are small windows through which they can converse. Above the baths are a kind of galleries on which people can stand who wish to converse with the bathers, for everyone has free access to the baths, to see the company and talk with them. The bathers frequently give public dinners in the baths, on a table which floats on the water, and our party received several invitations. I paid my share of the reckoning, but though often requested to favour them with my company, I never accepted the summons on account of my ignorance of their language, for it seemed to me an act of folly in an Italian, who could not take any part in conversation to spend all the day in the water, employed in nothing but eating and drinking. They go into the water three or four times every day, and spend the greater part of their time in the baths, where they amuse themselves with singing, drinking, and dancing, and in the shallower parts of the water they also play upon the harp. Besides money, garlands and crowns of flowers are thrown down, with which the ladies ornament their heads while they remain in the water. As I only bathed twice a day, I spent my leisure time in witnessing this curious spectacle, visiting the other baths, and causing the bathers to scramble for money—as there was no opportunity for reading or studying. The whole place resounded with songs and musical instruments, so that the mere wish to be wise were the height of folly in me, especially, who am not like Menedemus in the play, a morose rejector of amusement, but one of those who take a lively interest in everything which concerns their fellow-mortals. There is a large meadow behind the village, near the river, and this meadow which is shaded with abundance of trees, is our usual place of resort after supper. There the people engage in various sports: some dance, others sing, and others play at ball, but in a manner very different from the fashion of our country. For the men and women throw in different directions a ball filled with little bells; when the ball is thrown they all run to catch it, and whoever lays hold of it is the conqueror, and again throws it at somebody for whom he wishes to testify a particular regard."[1]

[1] The Life of Poggio Bracciolini, by the Rev. William Carpenter, pp. 69-76. Liverpool, 1802.

Fynes Moryson, an old English traveller, gives the following description of the baths of the Swiss Baden, as they existed in 1617. These baths, he says, "are famous for medicine, and are in number thirty, seated on each side the brooke, which divideth them into *Bethora*, the great and the little. In the great, divers baths are contained under one roof of a house, and without the gate are two, common to the poore. These waters are so strong of brimstone, as the very smoak warmeth them that come neere, and the waters burn those that touch them. Of these, one is called the Marquess Bath, and it so hot as it will scald off the haire of a hogge. The waters are so cleare, as a penny may be seen in the bottome, and because melancholy must be avoided, they recreate themselves with many sports, while they are in the water, namely, at cards, and with casting up and catching little stones, to which purpose they have a little table swimming upon the water, upon which sometimes they doe likewise eate. These baths are very good for a cold braine, and a stomach charged with rhume, but are hurtful to hot and dry complexions, and in that respect they are held better for women than men."[2]

Those who may feel disposed to smile at the foregoing description of a remote Swiss watering-place of the sixteenth century should remember that the surroundings of the mediæval patients were at any rate far more civilised at Baden than was obtainable at the same, or even down to a much later, period in any of the olden British health-resorts frequented by our ancestors. Thus, according to Macaulay's graphic picture of an English watering-place two hundred years ago, "the gentry of Derbyshire and the neighbouring counties repaired to Buxton, where they were crowded into low wooden sheds, and regaled with oat-cake and with a viand which the host called mutton, but which the guests strongly suspected to be dog. ..... Bath was then a maze of only four or five hundred houses, crowded together in the vicinity of the Avon. Pictures of what were considered the finest of those houses are still extant, and greatly resemble the lowest rag-shops and pothouses of Ratcliff Highway. The poor patients to whom the waters had been recommended lay on straw in a place which was a covert rather than a lodging."[3]

Little more than a century ago the baths of Harrogate were thus described by Smollett in "Humphry Clinker": "At night," he says, "I was conducted into a dark hole on the ground floor, where the tub smoked and stunk like the pit of Acheron in one corner, and in another was a dirty bed, provided with thick blankets, in which I was to sweat after coming out of the bath. After having endured all but real suffocation for above a quarter of an hour in the bath, I was moved to the bed and wrapped in thick blankets, where I lay for a full hour panting with intolerable heat."

The length of time patients then passed in these baths was one of the most constant and remarkable features of all the ancient watering-places. In this respect, however, the bathers at Baden-on-the-Limmat were more than rivalled by those who frequented the not very distant baths of Pfeffers, in which, as an old writer assures us, they were wont to remain for several days at a time in the water. "Multa dies noctesque thermis non egrediuntur; sed cibum simul et somnium in his capiunt." In this respect I am inclined to think that we have gone somewhat too far into the opposite extreme, from the over-prolonged immersions of our forefathers, by the unduly short duration, in many instances of our modern mineral water baths. In the case of baths such as those of Pfeffers or Wildbad, at least, the natural temperature of which does not exceed that of tepid water, I am convinced that the duration of the bath might be almost indefinitely prolonged, not only with impunity, but even with advantage in its treatment of many cases of chronic rheumatism and gouty arthritic affections and cutaneous diseases. The mineral water of Baden-on-the-Limmat, according to Löwig, belongs to the class of thermal saline springs, and contains per pint thirty-three and a half grains of saline matter. The most important of its mineral constituents are chloride of sodium and sulphates of soda, lime, and magnesia, carbonate of lime, fluoride and chloride of calcium, and small amounts of other salts of lime, potassium, and magnesia, together with a large amount of carbonic acid and sulphuretted hydrogen gas. The primary action of a water of this kind is obviously that of stimulating the gastro-intestinal mucous surface and liver; at the same time, though in a lesser degree, also augmenting the renal secretion, and so increasing the elimination of uræmic compounds and other *materies morbi* from the system. By its action in this way, in the excretory organs, may be sufficiently explained the unquestionable frequent utility of Baden water in many cases of gouty and rheumatic complaints, as well as its efficacy in the treatment of dyspepsia, habitual constipation, chronic hepatic and abdominal plethora, and obesity. At the present time, Baden-on-the-Limmat is frequented by few except Swiss valetudinarians, who, together with invalids from the neighbouring German States, form the bulk of the fourteen thousand visitors recorded in the Kur-Liste during the season, which lasts from June to September. These baths and waters are principally resorted to in cases of strumous disorders and in the treatment of some obstinate skin diseases, in secondary and tertiary syphilis, and also in chronic rheumatism and gout, with exudation into the joints.

Merrion-square, Dublin.

[2] An Itinerary written by Fynes Moryson, Gent., containing his ten years' travels &c. Part 1st, Book 1st, p. 26, folio. London, 1617.

[3] Macaulay's History of England, vol. i., p. 139.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CHLOROSIS; INFLUENZA; TRANSFUSION RECOVERY.

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PHYSICIAN TO THE NORFOLK AND NORWICH HOSPITAL; AND
C. WILLIAMS, F.R.C.S.,
SURGEON TO THE NORFOLK AND NORWICH HOSPITAL.

A. D——, aged twenty-five, a domestic servant, had suffered for more than a year from marked chlorosis, when on June 3rd she was attacked by influenza, characterised by high fever and gastro-intestinal symptoms. She kept her bed, but after lying for some hours beneath an open window she developed pleurisy on the left side on June 6th. Four days later she was worse, and the following note was made:—Deathly pallor, lips bluish, conjunctivæ white; temperature 102°; pulse 128, small and sudden; respiration 60. In the left axilla below the fourth rib there were dulness on percussion, distant breath-sounds, and friction. The heart's apex beat was in the fourth space in the left nipple line, and there was a loud systolic bruit over the whole base. The patient was ordered raw beef juice, milk, and champagne, the side was poulticed, and she took a mixture of ammonio-citrate of iron and spirits of chloric ether. Her restlessness and distress of breathing were so great that an opiate was given at night, with relief. She slowly lost ground till June 12th, when it was noted that the pulse was 160 and remarkably weak; respiration 72, and so laboured that she was scarcely able to speak, though the nurse understood that she was much alarmed by having lost all feeling in both legs, which were cold and œdematous. The tongue was dry throughout, and covered with black sordes. Her ashy colour and painful restlessness bore a close resemblance to a case of post-partum hæmorrhage. The physical signs denoted a small pleural effusion only, and bloodlessness was obviously her urgent condition. To all appearances death was imminent, and as a last resource transfusion of blood was decided on. Mr. Williams quickly connected the median basilic vein of the donor with that of the patient by means of Galabin's apparatus, and allowed the stream to flow from one to the other for four minutes; the necessary dissection seemed to cause the patient no pain, and the operation presented no difficulty. Two hours later the patient was obviously improved, the respiration had fallen to 48, and the pulse was not only slower (140) but less thready. From this time she slowly made way, though her progress was frequently interrupted, especially by symptoms connected with the stomach and bowels. On July 9th she was just well enough to be moved from her mistress's house to the hospital, the chief trouble at this time being great œdema of both

ower extremities. The pleural effusion on the left side had recently increased in amount, and after the withdrawal of forty-four ounces of clear serum by aspiration the œdema of the legs began to subside, and under the administration of iron and aperients she steadily improved. On Aug. 22nd she left her bed for the first time, and a few weeks later she went to Lowestoft, still very weak, somewhat anæmic, and with a large patch of alopecia developed during her illness.

Remarks.—This case illustrates the effect of two acute illnesses on a person already the subject of marked chlorosis. We believe that the influenza had a larger share than the pleurisy in increasing this anæmia to a degree that threatened life. She appeared to be certainly dying when transfusion was performed, and the fact that her dyspnœa was more alarming than the condition of the pulse induced us to use blood rather than salt solution, though possibly the latter would have been equally successful. We regret that circumstances prevented an examination of the patient's blood.

Norwich.

THE THERAPEUTICAL VALUE OF TURPENTINE.

BY CHARLES W. CHAPMAN, M.D., M.R.C.P. LOND,
PHYSICIAN TO THE FARRINGDON DISPENSARY.

THERE have appeared from time to time in THE LANCET important communications recalling attention to the value of some drug or therapeutical measure which had apparently fallen into disuse. Many practitioners are doubtless bewildered by the innumerable announcements of new remedies with which they are persistently assailed. Under these circumstances it is well to turn a deaf ear for a while to the importunities of the enterprising manufacturers of therapeutical novelties or wonderful combinations of drugs, and to look back at "the old remedies out of fashion." This can be done without prejudice to real advance in our art. Turpentine, as far as my observation goes, is a remedy which is wellnigh forgotten. I refer especially to the hæmostatic property of the drug. My attention was first called to the value of turpentine by Dr. Wilks when I was a student at Guy's, and I have frequently seen very satisfactory results follow its use in my own practice.

In 1873 I had a rapidly advancing case of purpura in a man twenty-five years of age, where hæmorrhage from the bowel was the symptom for which I was consulted. Never having previously seen a similar case, I at first failed to recognise the disease. I gave a saline purge, and followed with lead and opium (examination of the rectum having given no evidence of local trouble), but to no purpose. Before long there was severe bleeding from all the mucous surfaces, and this, with the appearance of petechiæ on the general cutaneous surface, cleared up any doubt as to the nature and gravity of the complaint. Gallic and tannic acids proving of no more value than the preceding treatment, turpentine in twenty-minim doses every two hours was prescribed. The effect of the remedy was prompt and marvellous, the bleeding diminishing in a few hours and stopping entirely in three days. I saw this gentleman quite recently; he is in good health, and has never had a recurrence of this mysterious disease.

In the treatment of bleeding from uterine fibroids turpentine has with me been of great value, this drug frequently having succeeded when ergot, from lengthened use, appeared to have lost its effect, or the patient wearied with having taken it so long. In 1881, F. H——, widow, thirty-eight years of age, came under my care for excessive menstrual loss. The intervals of freedom from bleeding had been gradually getting less, and she was terribly anæmic in consequence. Physical examination revealed the presence of a large intra-uterine fibroid. Though the subcutaneous injection of ergotine was occasionally resorted to, the great remedy was turpentine, which never failed to have a marked beneficial effect upon the bleeding. This patient was not allowed to submit herself to operative interference, though this was urged upon her; she has outlived her fibroid, and is now in the enjoyment of thorough good health.

In hæmoptysis, especially where there was much prostration, I have had reason to be satisfied with the hæmostatic and gently stimulating properties of the drug in question. Dr. Sydney Ringer, in the 1871 edition of his "Handbook of Therapeutics" (p. 273), remarks of turpentine that "it is very efficacious in bleeding from the lungs, nose, uterus, kidneys, and bladder." Yelk of egg and mist. tragacanth comp. are convenient vehicles for the drug, and when the patient does not object to it I have found peppermint a useful flavouring. Turpentine has many uses beyond those here indicated, but my object was rather to revive an interest in this remedy than to fully discuss its uses. I may mention I have never seen severe bladder symptoms follow the exhibition of turpentine. If painful micturition happened to supervene, cessation from the use of the drug for a short time was all that was required.

Fitzjohn's-avenue, N.W.

TARTAR EMETIC AS A REMEDY FOR INTESTINAL CATARRH.

BY L. GREY THOMPSON, M.D. ABERD.

CHILLS or indigestible food probably cause the following (four) varieties of the same disorder:—

1. An offensive diarrhœa of dark matter, accompanied by tenesmus and travelling pains in the pelvis. Raised temperature. Great depression, with frontal and occipital headache. Nausea and vomiting. Tongue silvered and scarlet-edged.

2. A purging of dark matter in early morning. Tenesmus. Scoring of anus, and cramps in the thick muscles. Raised temperature. Great depression. Flushing of face and frontal headache. Nausea and retching. Tongue and lips deficient in secretion. Edges of tongue moist, and flesh tint heavy in value.

3. Watery, grey dejections, which are inclined to leak through the sphincter, and are worse after midnight. Temperature normal. Great depression. No pains or aches. Deficient buccal secretions. Volvulus.

4. Sickening, offensive, curdy, watery diarrhœa; always worse after midnight. Temperature raised. Great depression. Alternate flushing and pallor of face. A common ailment of infants.

Treatment.—Commence with a purgative dose of calomel. Secure rest and warmth. Cut off all stimulating foods, and give milk with dextrose and dextrine. One minim of the antimonial wine or $\frac{1}{12}$ of a grain of tartarated antimony given each hour will soon restore the secretions; the mouth becomes moist, nausea disappears, appetite returns, the discharges cease to be offensive and become more consistent. One quarter or one half minim will be ample for an infant.

Launceston, Tasmania.

A CASE OF COAL-GAS POISONING.

BY BRUCE HAMILTON, M.R.C.S., L.R.C.P.

REPORTS of cases of coal-gas poisoning seldom appear in the pages of THE LANCET, so that I venture to forward the following for publication:—

M. G——, male, went to bed at midnight. The room occupied by him was an attic of small dimensions, and without ventilation by chimney or window. At 7.30 A.M. the door of the room was forced open, when gas was found to be escaping, and was immediately turned off. I found the man lying in bed, and presenting the following signs of asphyxia:—Total unconsciousness, sounds of expiration faintly audible, congestion and puffiness of the whole surface of the skin, the jaw firmly closed, eyes widely open, with the pupils equal and dilated; pulse frequent, 130 per minute. The pillows and sheets of the bed were stained by a yellow, frothy discharge which issued from the nose and mouth. Twenty minutes after the commencement of artificial respiration signs of returning consciousness appeared. In an hour he was able to swallow some hot tea, and in the afternoon of the same day he left London for the country, feeling quite well.

Finchley, N.

A LOAN STUD.—A meeting was held on the 16th inst. at St. Paul's House, Wilton-place, S.W., to form a committee for the carrying on of the loan stud left by the late Miss Lindo, the well-known founder of the Home of Rest for Horses. The stud was formed to enable poor cabmen to have workable horses to replace the disabled ones so frequently seen in the streets of London. Persons interested in the matter may have full particulars by applying to the trustee, Professor Atkinson.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

THREE CASES OF TRAUMATIC EPILEPSY; TREPHINING; RECOVERY.

(Under the care of Mr. PICK.)

THESE cases, two only of which we publish this week, are very interesting ones of injury to the head followed by epilepsy, which appears to have been cured by the operation of trephining in each instance. In a series[1] of eighty-two cases of operation for this disease two-thirds of them presented depressed bone or changes in its structure; in sixteen nothing was found to account for the epilepsy. As a result of the operation, forty-eight were completely cured and thirteen relieved. What is much wanted is an account of the ultimate result of operations for this condition, but, whatever the ultimate result, the temporary benefit is undoubtedly great.

CASE 1.—Herbert S——, aged thirty-three, a dairyman, was admitted under the care of Mr. Pick, on Oct. 25th, 1884. He stated that twenty-four years previously, when he was nine years of age, he fell from a swing and cut his head. He was not rendered insensible. It was not known at the time that the bone was injured, and he enjoyed good health and suffered no inconvenience for five years, until he reached the age of fourteen, when he began to have fits of an epileptiform character. The fits came on at first every two months, and were preceded by giddiness and twitching, and sometimes pain at the seat of injury. The fits gradually increased in frequency, and sometimes there had been as many as three in one day. On one occasion, however, there was an interval of fourteen months without a fit, and for three months before admission he had had no fit, but during the whole of this time he had been taking regularly a mixture of the iodide and bromide of potassium and the bromide of ammonium. Latterly his general health had become very bad; there had been great depression of spirits, with occasional periods of excitability; there had been also deterioration of the mental powers, and especially loss of memory, with mental aberration. During the fits he entirely lost consciousness. The convulsions, as far as could be ascertained, appeared to have been universal, but it had been noticed that the right side of the face, the side on which the injury was, was always more convulsed than the left, and that the mouth was always drawn to the right. He has noticed also that after the fits there has been defective vision of the right eye. During the attacks he frequently bit his tongue.

When admitted the patient was noticed to be in a depressed and nervous condition, with an anxious and somewhat dazed expression. He answered questions, however, quite rationally, and seemed quite alive to his condition, and most anxious that something should be done for his relief. Some little distance behind the coronal suture on the right side, and below the sagittal suture, was a crescentic scar about an inch and a half in length, and beneath this was an obvious depression in the bone, of a triangular shape and sloping inwards, from behind forwards. No pain was complained of on making pressure in this situation, and the scar, which was not adherent to the bone, was quite healthy. The bone around the depression was felt to be roughened and tuberculated.

On Nov. 6th, ether having been administered, a crucial incision was made over the depression, and the bone exposed. It was then found that a triangular portion of the skull, about an inch in length and three-quarters of an inch in breadth at its base, had been broken off and driven inwards, so that there was a triangular depression, with rounded margins, of the depth of about half the thickness of a normal skull. This portion of bone was removed with a trephine, and it was then found that the apex of the triangular piece of depressed bone had been pressing on the dura mater, which was here much thickened and opaque. The bone was of extreme density and very much thickened, being of twice the normal thickness of the skull. This was especially noticeable posteriorly, and therefore a second crown of bone was removed in this situation. The dura mater beneath this, however, was found to be natural. The internal aspect of the two crowns of bone which were removed was found to be rough and tuberculated. The flaps were now readjusted and retained in position by sutures and the wound dressed.

After the operation the temperature was never above 99°. The wound was dressed on the sixth day and found to be practically healed. On Dec. 24th (forty-nine days after the operation) he had a fit, and again on Jan. 15th, 1885 (ten weeks after the operation), he had another, and a third on Feb. 15th (five weeks later). They then almost ceased, for during the next three years he had, on an average, two fits in each year, at intervals of six months. During 1888 he had two fits, and one in March, 1889. His general condition has much improved, he has lost his anxious expression and his nervous and depressed condition. He is altogether brighter, is able to go about his occupation, and his memory has returned. He suffers much, however, from constipation and dyspepsia.

In this case it would seem probable that the epileptic seizures were due to the irritation produced by the roughened and thickened skull upon the dura mater, rather than to the pressure of the depressed portion of bone, and for these two reasons. Because, in the first place, there was no evidence of irritation and no epileptic fit for five years after the depression took place, during which period, no doubt, the ostitis was going on and the sclerosing process proceeding. Had the fits been due to the irritation of the depressed angle of bone, they would, in all probability, have shown themselves much earlier. And, secondly, it is probable that the thickening of the bone was the cause of the disease, for had it been due to the pressure of the depressed bone, its elevation would have been followed by a total cessation of the fits. In this respect the case affords a marked contrast to Cline's classical case, in which he trephined an epileptic patient with a depressed fracture, and whose last fit was on the operating table, before the elevation of the disc of the affected bone. It was taking this view of the case which seemed to render it expedient to remove the second crown of thickened bone. It would have been obviously impossible to have removed it all.

CASE 2.—Alfred H——, aged thirty-seven, was brought to the hospital by the police in an epileptic fit on Feb. 25th, 1891. He stated, on his recovery from the fit, that nine months ago he was in hospital with a severe scalp wound, and that ever since he had suffered from constant pain in his head and from fits, which recurred every three weeks or so. The fits occur without any premonitory warning, and he entirely loses his consciousness and frequently bites his tongue. He states that he had never had any fits before the accident nine months ago, and he has never had syphilis. He has no recollection of being brought in by the police. He states that he has been told that the fits affect the right side of the body much more than the left.

When admitted, and after his recovery from the fit, he was noticed to be odd and irrational in his manner, very easily excited and irritable, and prone to quarrel with the other patients in the ward. His speech was slow and indistinct, and his memory not good. In the middle line of the forehead, extending from the nasal eminence upwards for about four inches, was a depressed scar, which was adherent to the bone. There was considerable thickening of the tissues around the scar, which was very tender on pressure. The urine was normal. For a day or two after his admission he seemed stupid and dazed. Then he became brighter, but was still odd in his manner, and complained of a sense of tightness and pain in his head. On March 7th he had another fit, which was not, however, of long duration, and had passed off before the house surgeon could be summoned to him.

As it was thought probable that the epileptic seizures might be due to some neuralgic condition of the cicatrix on the scalp, constituting the starting-point of reflex convulsions, it was determined to remove it. Accordingly, on March 13th, the patient having been placed under the

[1] St. Bartholomew's Hospital Reports, vol. xix., p. 127.

influence of ether, an incision was made down either side of the scar and it was dissected off the bone. When this had been done, a small punctured hole, not more than a third of an inch in diameter, was found in the bone, situated in the middle line of the frontal bone, immediately over the longitudinal sinus. This hole was filled up with dense fibrous tissue. A crown of bone, including this hole, was now removed with the trephine, and the cicatricial tissue filling it was seen to be intimately connected with the dura mater. This was carefully dissected off. There was no splintering of the internal table of the skull, nor anything causing undue pressure on the membranes of the brain. The wound was closed and dressed.

After the operation the man seemed much brighter and better, and volunteered the statement that he felt better than he had done for some time, and had entirely lost the sensation of tightness and pain in his head. His temperature was normal, and remained so throughout the future progress of the case. On March 20th the wound was dressed and found to be healed. He was allowed to get up. He seemed brighter, and said that he had entirely lost the old pain in the head. On April 8th he was sent to the Atkinson Morley Convalescent Hospital. He seemed to have quite recovered from the operation and complained of no pain. He was still odd and irrational in his manner, inclined to be quarrelsome and to take offence. On April 15th after some trivial dispute, in which he had been much excited, he had a fit, and again the next day he had a second. He was therefore readmitted into St. George's Hospital. He remained there until April 22nd, when he was discharged to go to his own home at Maidstone. He promised to return to the hospital if he had any more fits, but he has not made his appearance.

STANLEY HOSPITAL, LIVERPOOL.

SEQUEL OF THE CASE OF GASTRO-ENTEROSTOMY AND JEJUNOSTOMY; DEATH FROM INTERNAL HERNIA.

(Under the care of Mr. LARKIN.)

WE give the final result of the operative measures undertaken for the relief of this patient. The earlier notes were published in THE LANCET of July 11th and Sept. 19th of this year. Our readers will recollect also that much discussion ensued after the publication of the second part of the case as to the reason why the symptoms had returned.

Jane G——, aged forty-seven, had symptoms of pyloric obstruction from July, 1890. On May 22nd, 1891, Mr. Larkin performed gastro-enterostomy, which completely relieved the symptoms for eight weeks, when they returned, and on Aug. 4th jejunostomy was performed, and the patient fed on milk, eggs, &c., through a catheter. She did well, and left the hospital much relieved on Sept. 13th. When at home she thought she would try to take food again by the mouth. She took a cup of tea, and, finding this did not come back, tried bread-and-butter, milk, rice pudding, minced meat, fish, &c. As she did not vomit, felt well, and her bowels were regular, she withdrew the catheter from the jejunostomy aperture, and took food only by the mouth. About the commencement of October she began to feel weaker and ill. She took to her bed, and a few days later a bedsore appeared over the coccyx and spread rapidly.

On October 12th she was readmitted to the hospital in a very weak and emaciated state. There was a large bedsore over the region of the coccyx. Temperature normal; bowels regular; slight yellow ooze from jejunal opening. Took liquid food by the mouth and was not sick. She continued in the same condition until Oct. 20th, when she was sick after everything she took, and had slight pain in the abdomen.

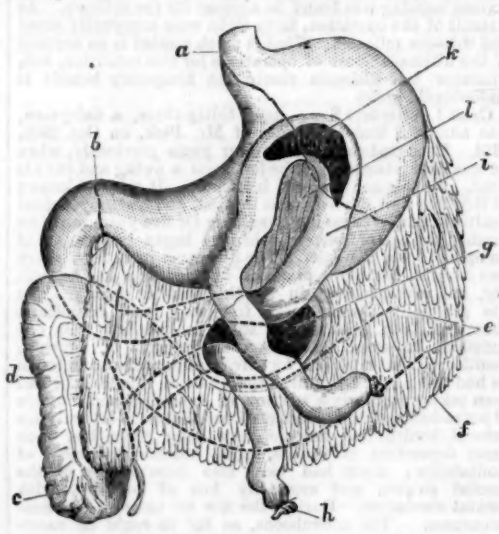
Oct. 21st.—Vomiting continued. Bowels moved.

22nd.—Had no food, but vomited bile-stained fluid. Bowels moved.

23rd.—Condition the same.

24th.—Takes nothing. The least thing causes vomiting. Bowels not moved since the 22nd. No pain. At 5 P.M. she was suddenly seized with great pain in the abdomen, became collapsed, and died at 1 A.M. on the 25th.

An examination of the body was made twenty-four hours after death. The points of interest are the following:—On opening the abdomen the peritoneal cavity was found to contain much thin fæces. There was a firm adhesion between the jejunum and the incision in the abdominal wall made in performing the gastro-enterostomy. The portion of jejunum selected in the jejunostomy was only from two to three inches above this adhesion, and a little over two feet from the part attached to the stomach. The piece of jejunum between these two attachments to the abdominal wall formed a little loop, and between this loop and the parietes the upper segment of jejunum had slipped. It was firmly nipped. The intestine above was greatly dilated, and had ruptured just above the seat of constriction. The intestine below was contracted. There was slight general peritonitis. After tying the aperture and washing out the abdomen, it was at once noticed that almost all the intestines were in front of the great omentum, and such cover as it gave to them was only on the left side, and due to its covering round their left border. Careful examination, in fact, showed that all the small intestine had prolapsed through a large hole, three inches in diameter, situated in the great omentum and transverse mesocolon, lying just below the stomach and above the transverse colon (*g* in figure). The hole had smooth, round, strong edges, and through it passed superiorly the commencement of the jejunum, and inferiorly the ileum, about four inches from the ileo-cæcal valve. This was obviously the hole made in these structures at the first operation. The stomach and intestines were then



a, Cardiac margin of new growth. *b*, Pyloric margin of new growth. *c*, Cæcum. *d*, Ascending colon. *e*, Dotted outline of transverse colon. *f*, Omentum majus. *g*, Aperture in great omentum and transverse mesocolon. *h*, Ileum. *i*, Jejunum. *k*, Communication with stomach. *l*, Mesentery, adherent to stomach.

removed *en masse*. The lower end of the œsophagus was then held on to the water-tap, and the stomach distended with water. The water flowed easily on into the intestines, but when the duodenum was pinched none passed, showing that the pylorus was patent, while the gastro-jejunal opening was not. The stomach was now opened along the lesser curvature; when partially opened the little finger could be easily passed through the pylorus. The wall of the greater part of the stomach was much thickened, varying from three-quarters to an inch and a quarter in thickness. From one-third to one-half of this thickness consisted of the greatly hypertrophied muscularis, while inside of this was a soft, white growth, with a rough, irregular surface. To the right it ceased abruptly at the duodenum, but to the left more gradually, ending along the lesser curvature at the cardiac orifice, but along the growth some four to five inches from the œsophagus. The uninvolved cardiac end was of ordinary appearance. Careful search failed to detect any trace of the communication with the jejunum. The jejunal coil (fastened to the stomach at the operation) was now opened, and the silk threads used in the operation were at once recognised. Two of them passed into a small depression an eighth of an inch broad, while the other two passed

directly into the wall of the gut. Into the depression was passed a fine probe, and it found its way into the stomach, emerging in the stomach by a very fine aperture between the folds of mucous membrane and about half an inch from the edge of the growth (*k* in figure). There was no trace of silk thread in the stomach. Gentle traction on the threads in the jejunum did not loosen them from the wall. The glands around were enlarged, but there were no secondary deposits anywhere. The pathological specimen was exhibited at a meeting of the Liverpool Medical Institution on Nov. 5th, 1891.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Pleural Effusion associated with Abdominal Disease.

AN ordinary meeting of this Society was held on Nov. 24th, Mr. Willett, Vice-President, in the chair.

Professor LAWSON TAIT communicated a paper on the occurrence of Pleural Effusion in Association with Disease of the Abdomen. The purpose of this paper was to draw attention to the occurrence of pleural effusion as a condition occasionally associated with disease in the abdomen. The first case in which the author saw the complication was one in which the disease proved to be a cancerous development in the ovary associated with secondary cancerous growth in the pleura, the result of which was that the pleural effusion had a sanguinolent character, and a tentative operation to deal with the abdominal disease proved a failure and the patient died. In other cases in the author's experience he gave a universally unfavourable prognosis, and declined to interfere by operation when the pleural effusion proved to be of a bloody character, on the ground that it was a certain indication of the presence of malignant disease. He related, however, as a contrast, a remarkable case in which double effusion into the pleural cavity of a markedly bloody character, with ascitic effusion in the peritoneal cavity, also sanguinolent and associated with a tumour, recovered from three tappings of the pleura, after which the pleural effusion did not recur, the ascitic effusion, however, recurring after thirty tappings. The patient's health improved so remarkably that Mr. Tait was induced to make an attempt to remove the tumour which was the apparent cause. This proved to be a fibroid tumour of the ovary, which was removed quite successfully, and the patient's health remained perfect four months after the operation was performed. As no recurrence of any effusion or growth of any malignant disease occurred, the author was inclined to regard the opportunity that he had of correcting the erroneous conclusion in this instance as a very remarkable confirmation of his view—that all cases of abdominal disease, however unfavourable the aspect of the case was, ought to have the opportunity of an exploratory or confirmatory incision. Such operations added hardly in any degree to the progress of the disease if they were futile, whilst the saving of a case such as this would in itself constitute a strong argument in favour of the proceeding. He was quite prepared to believe that several of the cases he had refused to operate upon, on account of the presence of bloody serum in the pleural cavities, might have proved successful if submitted to the exploratory proceeding. It confirmed the view he had frequently expressed—that no condition, however unfavourable its appearance, in abdominal disease was an absolute bar to successful interference by surgical means.

Dr. HALE WHITE regarded the paper as of considerable pathological interest. Some years ago, in bringing forward a case bearing on the subject at the Clinical Society, Dr. Fagge pointed out the mysterious affinity between the various serous cavities. The case was one of peritonitis and pleurisy, in which also pericarditis and meningitis developed, and for which there was no obvious cause. Another case he himself had brought before the Clinical Society, of peritonitis, pericarditis, and pleurisy, the patient, a girl, subsequently got well. No cause for the lesions was evident. In Bright's disease and rheumatic fever one saw a common affection of the serous membranes, and in cases of pericarditis and pleurisy it was not uncommon to get associated peritonitis.

Dr. ROUTH thought that the pathological question raised was this: In every occasion of a sanguinolent pleuritis was there malignant disease of the abdomen present? But the case quoted to illustrate the paper was one of benign tumour. The pleuritis of children was often sanguinolent without abdominal disease being present. There was no doubt that in some cases of abdominal cancer there was an accumulation of bloody fluid in the pleura. In gastric cancer bloody fluid was frequently found, and a sanguinolent pleuritis was often associated with cancer of the liver. In some of the acuter malarial fevers there was often a malignant pneumonia with sanguinolent fluid in the pleura. With regard to tubercular disease of the abdomen in children, pleuritis was often present, and was often sanguinolent, and this was generally due to the presence of tubercle in the lungs. The operation which had been performed he regarded as perfectly justifiable.

Mr. WILLETT remarked that the last case related in the paper was one of considerable clinical interest. The author did not appear to explain why the effusion was at first sanguinolent and afterwards clear.

Dr. GRIFFITHS observed that the late Dr. Duncan in a clinical lecture had related cases of hydroperitoneum associated with hydrothorax. In one case, a lady after abortion recovered without rise of temperature. He had seen one case of pleural effusion associated with hydroperitoneum in which he had advised against operation; it was associated with œdema of the lung and albumen in the urine. The operator, however, removed the growth, and the patient got rapidly well.

Dr. FREDERIC TAYLOR, in reference to the association of the effusion of simple fluid into the pleura with a similar effusion into the peritoneum, quoted the case of a nurse at the Evelina Hospital in whom these symptoms developed without discoverable cause, and under medical treatment subsided without the necessity of tapping, the patient completely recovering and returning to duty. He thought that tubercle was the most frequent cause of effusion both into the pleura and the peritoneum, though other diseases, such as pyæmia, might hit both cavities at the same time. Of course it was not forgotten that suppurative disease of the abdomen might extend to the chest. The occurrence of blood in a serous effusion could not be regarded as a sign of malignant disease, for bloodvessels in a partly organised adhesion might give way.

Mr. BARWELL said that malignant disease of the pleura might exist without sanguinolent effusion. He had published, under the name of "Acute Traumatic Malignancy," a case which illustrated this.

Dr. HEYWOOD SMITH would explain the fact that the fluid withdrawn was at first sanguinolent and afterwards clear in this manner. There was at first an increased vascular supply to the growth, which was accompanied by increased tension, and this led to the effusion being tinged with blood. After the tension had been lowered by tapping, the probability of blood becoming mixed with the effusion became much less.

Mr. A. H. TUBBY said that experiments made on animals went to show that the pleura, pericardium, and peritoneum were to be regarded as large lymphatic sacs communicating with each other.

Dr. HERBERT SPENCER said that pleural effusion was common in malignant disease of the abdomen, and was also common in septic cases. Sometimes it occurred in the opposite direction, and effusion into the peritoneum might be secondary to lung disease. He had had a case under his own care in which a non-sanguinolent pleural effusion was associated with non-malignant abdominal tumour. A girl aged seventeen had suffered from tumour for about two years. It had been aspirated three times, and several gallons of fluid had been drawn off. The left pleura was also full of fluid. A large multilocular ovarian cyst was removed, and the wound healed by first intention, as was commonly the custom in cases treated antiseptically.

Mr. LAWSON TAIT, in reply, gave his reason for producing the paper. In conversations which he had held with several physicians having much to do with diseases of the chest, he had uniformly been told that a serous pleural effusion containing blood in cases of chronic abdominal disease was of necessity an indication of malignant disease. He had believed that statement to be true till he met with the second case he had related, and he had been unable to find in literature any authoritative contradiction of the rule above laid down. In the case related he had excluded all the ordinary causes of effusion, such as rheumatism or pyæmia. He had not sufficiently followed experiments on animals to be prepared to believe that the pleura and peritoneum com-

municated with each other. In chronic disease of the abdomen he thought that pleural effusion was very rare. He was very doubtful if the so-called tubercular peritonitis was the same as tubercle of joints and he thought that under the term "tubercular peritonitis" were confused four or five different things. Certainly that variety which was cured by washing out had no kind of analogy with tubercle of the lungs. Cases had been described of pleurisy with peritonitis and effusion into joints, but these were often instances of chronic pyæmia; he quoted a case to illustrate this. He did not pretend to explain why the fluid was sanguinolent at first and clear afterwards. Finally, he desired to know of those who had much experience of chest cases how often an effusion into the pleura contained blood; how often its bloody character might be depended on as an indication that malignant disease was present, and how often pleural effusion was associated with chronic abdominal disease. In very many cases of undoubted cancer there was no pleuritic effusion present.

MEDICAL SOCIETY OF LONDON.

Excision of Elbow for Injury.—Moniliform Hair.—Macular Leprosy.—Opening of Cæcum for Obstruction.—Complete Transposition of Viscera.—Naso-pharyngeal Polypus.

AN ordinary meeting of this Society was held on Nov. 23rd, the President, Dr. Douglas Powell, in the chair.

Mr. W. F. HASLAM showed a case of Excision of the Elbow for Injury. The patient was a man aged fifty, whose elbow he had excised nineteen months ago for a compound comminuted fracture. The injury was caused by a blow from a coupling chain. The outer condyle and the capitellum of the humerus were shattered, and a small piece was broken off the head of the radius, the ulna being uninjured; the soft tissues on the outer side of the joint were pulped. Excision was performed by the usual longitudinal incision, a smaller one at right angles to this being made through the damaged tissues on the outer side. The humerus was removed just above the condyles, and the head of the radius, together with the greater sigmoid cavity of the ulna were also removed. Healing was necessarily attended by some suppuration of the bruised tissues, but the patient was able to leave the hospital at the end of five weeks. The movements of the joint were now perfect, with the exception of some slight loss of the power of extension, and the arm was for all ordinary purposes as useful as the other. Mr. Haslam drew attention to the importance of dealing promptly with these cases, and of deciding whether an attempt should be made to save the joint or whether excision should be done. He thought that where the fracture into the joint was associated with much bruising and laceration of tissue an excision gave a much better result than a less radical proceeding, for in addition to the dangers of an acute arthritis there was that of a stiff joint, while with an excision these two dangers were practically eliminated. The present case illustrated very well what result might be obtained by excision in a perfectly healthy man who had the will and determination to carry out the necessary passive movements.—Mr. SHEILD said that he felt that the best method of treating compound fractures into joints of the upper extremity was by primary excision; but the same rule did not apply in the case of similar injuries to the joints of the lower extremity. He asked if a complete excision had been done, as would have been the case in disease. Recently erasion had almost taken the place of excision for disease of the elbow, but this he considered to be an unfortunate thing to do in all cases; for the result of excision of the elbow after the age at which the epiphyses had united was usually most admirable, especially if sufficient bone were taken away. In the case shown by Mr. Haslam the movements of pronation and supination were excellent.—Mr. HASLAM, in reply, said that he had removed the lower end of the humerus at a point just above the condyles, and the lower line of section included the head of the radius and the greater sigmoid cavity of the ulna.

Dr. ABRAHAM then exhibited a child two years and a half old, the hair of whose head was Moniliform. The girl had been taken to Blackfriars Hospital in October last, and was then bald from alopecia areata. The short hairs present were noticed to be very brittle, and under the microscope they presented a series of nodes and internodes; there was pigment present in the nodes, and the fractures occurred in the internodes. Dr. Walter Smith of Dublin had first called attention to this variety of hair, and Dr. Abraham was inclined to believe that there was a bacillus at the bottom of it. Both cantharides and chrysarobic acid had been used.—Dr. COLCOTT FOX said that he had had under his care for several years a family of three who were sufferers from this disease. In each the affection had commenced from birth. The mother, aged fifty, was quite bald, while the two daughters, aged respectively thirteen and sixteen, were becoming bald. The hair was moniliform throughout, and a section of a portion of scalp from one of them showed that the moniliform condition went quite down to the root of the hair. Folliculitis of the scalp was also present, but it appeared to be secondary. He had looked upon it rather as a developmental defect, and akin to the rings of unequal pigmentation that were sometimes seen in hair, the colouring resembling that of the quill of the porcupine. He had found treatment completely fail to relieve the condition.—Dr. ABRAHAM, in reply, said that in the cases related by Dr. W. Smith and Professor McCall Anderson there was a family history of a similar ailment.

Dr. ABRAHAM likewise exhibited a boy aged seven who was the subject of Macular Leprosy. Eight months ago he commenced to develop a localised erythema in Demerara; his case was at once diagnosed by Dr. Castor, and his friends sent him off by the next steamer to London. He had been treated by small doses of tuberculin, and after the third injection he had a reaction typical of this kind of leprosy. It did not begin till fifteen hours after the injection was given, and it lasted for seventy hours, accompanied by great malaise, and with a distinct local reaction. He had about ten injections, and a little redness developed in the spots. After that he took twelve minims of chaulmoogra oil every day, and he had much improved, though whether the improvement was due to the oil, to the tuberculin, to his food, or to the difference of climate it was difficult to say. On his arrival in this country there were great thickening and soft nodulation of the lobe of the right ear; a ring patch on the chest, which was discoloured, but pale in the centre; and raised erythematous patches on the cheek, elbow, and legs. Dr. Abraham excised one of the maculæ, and he showed sections of it. There was irregular cell-growth in the dermis, together with giant cells, but there were no bacilli. Several observations on the blood during the progress of the injections had been made, but no free bacilli could be found.—Dr. COLCOTT FOX said that nearly all the cases of this variety of leprosy could be easily diagnosed from the early appearance of trophic changes of the extremities. The fact that no bacilli could be found locally agreed with observations that had been made before. These maculæ were merely trophic lesions from irritation of cutaneous nerves, and therefore no bacilli were to be expected locally; whereas in the tuberculated form there were growths of specific new tissue, which were the result of the action of the bacilli themselves.—In reply to the President, Dr. ABRAHAM said that no case of the sort was known in the family. It was only after the third injection of three milligrammes of tuberculin that the patient showed any reaction, and then it was remarkably prolonged.

Mr. D. H. GOODSALL read notes of a case of Opening of the Cæcum for Intestinal Obstruction. The patient was a labourer aged forty-six, who for eighteen months had suffered from anorexia, and was losing flesh. For six days before admission no flatus was passed, and for nine days he had been suffering from vomiting. The abdomen was resonant; there were tenderness and resistance in the right iliac fossa; enemata failed to give relief. On Aug. 7th the cæcum was fastened to the abdominal wall; on the 9th it was opened, and two or three pints of fluid feculent matter escaped. The patient died a few hours afterwards, and at the necropsy it was found that the adhesion of the cæcum to the abdominal wall had given way, and that there had been a considerable leakage into the cavity of the peritoneum. A malignant growth was found in the ascending colon. Mr. Goodsall then showed a patient, who was a clerk aged thirty-four, on whom he had performed a somewhat similar operation. The bowels had been confined for nine days, and several aperients and enemata had been given, with negative results. Vomiting began two days before admission; the abdomen was distended and resonant everywhere. Right inguinal colotomy was performed; the cæcum was found almost gangrenous, and opened at once. In the course of an hour more than two gallons of feculent matter had drained away. The

opened intestine was drawn well out and fixed by stitches. On the eighth day the congested part of the cæcum gave way externally. The patient made an uninterrupted recovery, and gained in weight for some time; since then a malignant growth could be felt above the pelvic brim, and the patient was going steadily down hill.—The PRESIDENT inquired if the direction of the peristaltic movement in the first case could be made out.—Mr. WALSHAM approved of the practice of drawing the gut well out of the wound and securing it by stitches at least an inch from the site of the incision into it. He thought it well, as a rule, to wait for two or three days before opening the intestine.—Mr. GOODSALL, in reply, said that peristalsis could not be observed, though with a stethoscope wind could be heard passing. He advocated opening the gut by a small incision, as then the fæcal evacuation could be better guided than could the flow from a large cut.

Dr. SEYMOUR TAYLOR brought a patient with complete Transposition of the Viscera. This patient was a stonemason aged eighteen, and he enjoyed excellent health. The heart's apex was on the right side, the liver was in the left hypochondrium, the spleen in the right axillary line, the cæcum occupied the left iliac fossa, while the sigmoid flexure lay on the right side. The area of stomachic resonance could be marked out on the right side, and the right testis hung lower than the left. He remarked that the majority of recorded cases had occurred in adult men, though in many the transposition was incomplete. For explanation of the phenomenon he adopted the theory advanced by Allen Thompson, that these cases were always one of twins developed from a single ovum. The two embryos lay side by side prone upon the yelk; that which lay to the left looking from above rotated to the left and was natural, while the one to the right rotated to the right, and in it the viscera became transposed. The patient exhibited was right-handed, and there was no history of tendency to malformations in the family.—The PRESIDENT thought that the theory enunciated, if correct, should apply to all cases of homologous twins.—Dr. JAMISON thought that such a lesion should make these patients genuinely left-handed.—Dr. HERON had seen a case in a civil engineer who was over forty years of age, had had a rough life, and was still at work; he enjoyed excellent health, and was a right-handed man.

Mr. SPENCER WATSON read notes of a case of Polypus hanging from the left nostril into the naso-pharynx, and visible from the mouth behind the uvula. The patient, a girl aged sixteen years and a half, had had symptoms for two years and a half, and had had partial operations at various times, with temporary relief. Mr. Watson, after a failure in a first attempt with snares, succeeded in a second by the use of a specially devised spring-catch forceps and of White's palate hook in snaring and removing the growth, which proved to be a myxomatous or gelatinous polypus, and to measure 2¼ in. in length and 1¼ in. in width. The only anæsthetic used was a 20 per cent. solution of cocaine applied freely to the nostril and the pharynx.—Mr. WALSHAM had found no difficulty in avulsing these polypi with forceps.—Mr. WATSON, in reply, said that removal by forceps had been tried without success before he resorted to snaring.

OPHTHALMOLOGICAL SOCIETY.

Traumatic Abscess of the Region of the Left Angular Gyrus, with Right Hemianopsia (limited fields) and Word Blindness treated by Operation.—Temporary Blindness in a Child following Fracture in the Occipital Region.

AN ordinary meeting of this Society was held on Thursday, Nov. 12th, the President, Henry Power, F.R.C.S., in the chair.

Dr. BEEVOR and Mr. HORSLEY communicated a case of Traumatic Abscess of the Left Angular Gyrus with Right Hemianopsia (limited fields), and Word Blindness, treated by Operation. About Christmas, 1890, H. G. L—— fell down whilst leading a horse and received a scalp wound on the left side of the head from the animal's hoof. He suffered from headache for three weeks after the accident, then became suddenly unconscious, vomited, and had a general convulsion. Three weeks later his eyesight began to fail. Vomiting had occurred every day. On March 9th, 1891, he was admitted to the National Hospital for the Paralysed and Epileptic, with double optic neuritis and right hemianopsia, the temperature being subnormal (97·5°). There was a scar about three inches long on the left side of the head, which was tender and adherent to the underlying parts. An abscess was diagnosed, probably in the left angular gyrus. Mr. Horsley operated, disclosing a fracture of the vault and some necrosis corresponding to the adherent scar. On trephining behind this, an abscess was found in the upper part of the angular gyrus and the outer surface of the occipital lobe, and two ounces of pus were removed. After the operation the boy was found to have word blindness; and on examining the fields, the right was found to be contracted on the nasal side to 20°, and on the temporal to 5°, while in the left eye the nasal was reduced to 10° and the temporal to 50°. The case progressed fairly well at first, but hernia cerebri developed later, and on May 19th the patient became much worse and died. At the necropsy the dura mater was found adherent on the left side to the margins of the Sylvian fissure as far forward as the ascending parietal convolution, to the lower third of the supra-marginal gyrus, the posterior part of the superior and middle temporo-sphenoidal convolutions, the whole angular gyrus except the upper fourth, and the anterior part of the occipital lobe. On a horizontal section there was much softening, extending inwards across the hemisphere from the site of the hernia cerebri.

Mr. PAGE related a case of Temporary Blindness in a child following fracture in the occipital region. The patient, who was only three years old, and in whom ophthalmic examination was very difficult, had remained unconscious for several days after a severe fall on the head. There was a large hæmatoma, but no sign of depressed fracture in the left occipital region. There ensued slight weakness in the right arm, nystagmus, and right internal squint; but the important feature in the case was the complete loss of sight which, in the opinion of all who saw her, was undoubtedly present. Several months elapsed before there was any improvements in this point, and even now, sixteen months after the accident, it was by no means certain that vision was fully restored. The site of the chief injury to the head, and the fact that a linear irregularity could now be felt at the posterior superior angle of the left parietal bone, made it probable that there was originally a fracture running from this place downwards to the base in the occipital bone; and it is surmised that the convolutions in that region were severely bruised, which might have accounted for the blindness. The opportunity for trephining, however, did not arise; and, acknowledging that this view of the case was founded more on conjecture than on established fact, there was certainly, as far as could be made out, no other cause for the loss of sight. The optic discs were invariably normal, and there was no indication of injury in the anterior parts of the cranium, orbits, or brain.

Mr. NETTLESHIP briefly described the case of a sailor aged nineteen, who while at sea sustained a violent blow from an iron chain on the left side and back of the head and across the bridge of the nose. He stated that he could not see with his right eye. On examination he was found to have right homonymous hemianopsia, and apparently had hallucinations of sight, the objects seen being referred to the blind half of the fields. The line of demarcation in the fields deviated, as it so frequently did, about ten degrees towards the blind side close to the fixation point. The left half of each field was full. A deeply depressed scar existed on the skull, to the left of the median line, a little above the superior curved line of the occipital bone. There were no definite changes in the optic discs.

The PRESIDENT, in discussing these three communications together, referred to the uncertainty which still existed as to whether the angular gyrus or the occipital lobe should be considered the centre for visual perceptions. The cases now under consideration did not seem to help materially in the elucidation of this point, as in the only one in which a post-mortem examination had been made the lesion affected both areas.

Dr. MACKAY (Edinburgh) referred to the question of crossed amblyopia, and expressed it as his opinion that the cases hitherto published under this title by no means proved the occurrence of such a condition. He thought that the line of demarcation would be found to pass through the fixation point more frequently in cases of hemianopsia, if the tests employed were more delicate.

Mr. PRIESTLEY SMITH thought the occipital lobe was the true centre of vision, and that lesions of the angular gyrus

which gave rise to hemianopsia did so by implication of deep fibres. He did not believe that a condition to which the term "crossed amblyopia" could be applied, was ever due to lesion behind the optic commissure. In many of the cases of amblyopia in neurasthenic and hysterical people, the defect of sight might be explained by vasomotor disturbances within the eyeball.

Mr. NETTLESHIP said they were indebted to Mr. Priestley Smith for his theory of the retinal (peripheral) origin of certain cases of amblyopia. He thought it difficult to explain how an eye could remain so defective, as many of these cases of functional amblyopia did, for a very long time, without any visible changes in the retina or its vessels occurring. In quinine amblyopia there was restriction of the field of vision not unlike that noticed in the cases under discussion, but the arteries in the toxic affection were always narrowed, and often remained so for the rest of the patient's life. Again, in functional blindness the pupils remained active, and he was at a loss to understand how this could be accounted for if the defect were due to retinal changes, assuming the loss of sight to be sufficient to entail sluggishness of the pupils under ordinary circumstances.

Dr. JOHNSON TAYLOR mentioned the case of a man aged sixty, who was attacked suddenly by right homonymous hemianopsia, word blindness, and aphasia.

Dr. BEEVOR and Mr. HORSLEY, in replying, said they did not wish to classify their case as one of crossed amblyopia, and did not consider that it threw much light on the cortical localisation of vision. Referring to Mr. Page's case, in which it had been found impossible to obtain perimetric measurements of the fields of vision, Mr. Horsley spoke of a method of examination which had been used for monkeys and other animals, and thought it might be of service in very young children.

The following cases and card specimens were shown:—

Mr. KENNETH CAMPBELL: Unusual case of Rupture of the Choroid.

Mr. JOHNSON TAYOR: Eyeball containing two distinct Sarcomatous Tumours.

Mr. SYDNEY STEPHENSON: Unusual Retinal Reflex.

Mr. WAINWRIGHT: (1) Intra-ocular Growth; (2) Growth of Eyelid; (3) Displacement of Iris after Injury.

Mr. LAWFORD: Unusual Defect of Ocular Muscles.

Reviews and Notices of Books.

Epidemic Influenza. By RICHARD SISLEY, M.D. London: Longmans, Green, and Co. 1891.

THE keynote of this interesting monograph is to be found in the heading of the fifth chapter, "Influenza is contagious, and is chiefly, if not entirely, spread by contagion." The author, who thus maintains the thesis put forward by Haygarth, considers, like that writer, that much harm has accrued from a disregard of this essential factor in the spread of the disease, and so convinced is he of its truth that he advocates the inclusion of influenza in the schedule of the Notification of Diseases Act, the text of which he reprints as an appendix to this book. And certainly the facts which he adduces go far to sustain his opinion, although he hardly seems to explain the extraordinary suddenness and simultaneity of outbreaks with which the profession has become familiar of late. This was the difficulty which Sir Thomas Watson felt with regard to the acceptance of the invariable spread of influenza by contagion, and Dr. Sisley lays at the door of that accomplished physician the more popular belief in atmospheric contamination. But Dr. Sisley believes that careful inquiry will show that widespread outbreaks are mostly preceded by the occurrence of isolated cases which serve as the spark to light up the more general conflagration. He shows, too, that it travels along the lines of human intercourse, and, certainly, in these days, when travel is universal and all nations are knit together by the bonds of commerce, it is impossible to eliminate this factor in estimating the etiology of the disease. A sounder argument is the curious fact of which he cites examples, that during epidemics isolated communities, as those of the inmates of prisons and asylums, may escape the infection which is so freely attacking the rest of the community. As a sketch of the epidemic of 1889-90 this essay will have a historical value, and we can commend its careful perusal, for it abounds in highly suggestive statements. That there is still very much to learn concerning this remarkable affection, the history of which goes so far back in the annals of medicine, everyone must admit; and yet, accepting the doctrine of contagiousness, one cannot but feel that great difficulty would be encountered in the attempt to check its spread by measures of isolation. For the knowledge we have of the rapidity of its spread suffices to show that it must far surpass any other known infectious disease in the degree of its contagiousness, and no Act of Parliament could ensure the extreme promptitude in diagnosis which would be necessary to anticipate the extension of the disease to others. Certainly the machinery of "notification" would be quite inadequate to stem the tide of infection.

Leprosy. By GEORGE THIN, M.D. London: Percival and Co. 1891.

The appearance of this monograph is timely. The recently awakened interest in the subject of leprosy, the proceedings and journals of the Leprosy Investigation Committee, and the forthcoming report of the Commissioners who during the past two years have been studying the subject in India, combine to render Dr. Thin's contribution to its history and pathology especially welcome. We venture to say that his work will rank high amongst the scientific writings on the disease for the thoroughness with which he has entered into all its aspects, and not least for the full presentation of them in the light of its bacillary nature, which throughout Dr. Thin keeps prominently in view. The first chapter of the book deals with the History of Leprosy, and contains a fresh and instructive disquisition upon the nature of the leprosy of the Bible. Dr. Thin gives good reasons for believing that the conditions described in Leviticus are those of nerve-leprosy as known to us, but he admits that they also no doubt included other forms of skin disease, notably vitiligo; and he thinks that the affection so powerfully described in the Book of Job is, in all probability, true tubercular leprosy. Of great interest is the identification of the disease "uchetu," described in the Papyrus preserved at Berlin, with leprosy, which, if correct, would place historical proof of the disease in Egypt 4000 years before the Christian era. And Dr. Thin says it is highly probable that the Israelites acquired in Egypt "the disorder which they have never since lost." More information respecting leprosy in earliest times in China may still be obtained by further research into ancient Chinese works. As regards Greece, the fact that Hippocrates does not describe it seems to show that leprosy had not made its way into that country, although it probably did in the course of the next century, for it was referred to by Aristotle (384 B.C.). It was not till the first century A.D. that a full account of the disease was given—viz., by Aretæus, whose descriptions are very accurate. The spread of the disease over Europe, and the way in which this was extended by pilgrimages to the Holy Land, the thorough measures of isolation adopted in this country and the Continent, and the rapidity with which it disappeared after the adoption of such strict regulations, are all well described. They form one of the most interesting topics of the history of this, or, indeed, of any disease. The present geographical distribution of leprosy is discussed in the second chapter, and bears evidence of a most careful and extensive collection of facts. Some of these—for instance, those

referring to China and Thibet—are quite new, and are a very valuable addition to knowledge. A well-executed map affords much assistance to the reader of this part of the work. A detailed description of the two types of the disease (tubercular leprosy and nerve leprosy) follows, in which advantage is taken of the writings of many authorities. The chapter on the Pathology of Leprosy is one which should be most carefully studied by all who still question the relationship of the bacillus lepræ to the affection. The autotype reproductions of Mr. Pringle's micro-photographs show clearly a morphological difference between the tubercular and leprosy bacillus, and also the invasion of cells by the latter. The statement that the bacillus lepræ has not yet been cultivated outside the body (pp. 129, 179) is, however, no longer correct, as this important advance has been made by the members of the Leprosy Commission. Dr. Thin, however, quite anticipates any such discovery, and he represents most vividly the extent to which the parasite invades the system. The reason why in one case the nerves are mainly attacked, and in the other the skin and mucous membranes (as well as internal organs), can only be explained by a proclivity on the part of the nerves in some subjects to become more readily the seat of the bacillus, which is found to occur in both forms. The question of contagiousness—rendered very difficult owing to the doubts as to the period of incubation—is amply discussed, and a large number of instances are quoted in which there was *primâ facie* evidence of such a mode of transmission; and especial stress is laid on the value of the evidence afforded by the case reported by Dr. Hawtrey Benson of Dublin, where the brother of a leper became himself diseased after sharing his bed and wearing his clothes. There are many fairly convincing instances in the spread of leprosy in almost epidemic form, as at Cape Breton, Alicante, New Caledonia, and the south of France. One can hardly imagine that had the Committee of the College of Physicians been possessed of such evidence as is here given, they would have reported against contagion. There are numerous fallacies in accepting heredity in preference to contagion, and these are all pointed out by Dr. Thin. Chapters on Etiology, Inoculation, and the alleged Transference of the Disease by Vaccination, follow, and also a very important and useful one on Diagnosis. Under the head of Treatment there is ample discussion of the evidence respecting Gurjun oil and Chaulmoogra oil, a full account of Dr. Unna's treatment, and of that of Dr. Danielssen in Norway. Dr. Thin holds that, whereas it is impossible to enforce absolute isolation at all stages, very much may be done to banish the disease by more moderate and practicable measures of prevention and disinfectants. The work is one which is so full of matter that it is deserving of a closer analysis than we have been able to give to it; but we have no doubt that it will be widely read, and that it will go far to spread a wider and truer knowledge of this ancient scourge, which the progress of inquiry and the adoption of rational measures of prophylaxis may eventually banish from the earth as effectually as the plague.

OUR LIBRARY TABLE.

An Elementary Handbook on Potable Water. By FLOYD DAVIS, M.Sc., Ph.D. Silver, Burdett, and Co., New York, Boston, and Chicago, 1891; Gay and Bird, King William-street, London.—With the exception of the interesting chapters on the contamination and purification of water, we fail to see that there is aught else which, though designed for, can be of special value to the "physician, chemist, and sanitarian." While, for instance, the physician, chemist, and sanitarian will agree that the palatability of water, as set forth on page 7, depends mostly upon its absorbed gases, neither will admit that sulphuretted hydrogen contributes towards this desirable property. Yet these gases (oxygen, nitrogen, carbonic acid, and *sulphuretted hydrogen*), the author goes on to say, give the water not only an *agreeable* taste, but a sparkling brilliancy. The work contains, however, interesting matter on the inorganic, vegetable, and animal constituents of water; while the chapter on micro-organisms will be welcome reading to many. Natural and artificial purification and central filtration form the topics of Chapters VII. to IX. In the appendix, Section A is devoted to an article on the Origin and Home of Cholera, from the pen of Dr. D. B. Simmons, chairman of the Yokohama Foreign Board of Health; and in Section B occur qualitative tests, chemical and biological, for the impurities in drinking-water. The author has evidently a dismal idea of the state of English rivers. On page 70 he says "the pollution of English streams is carried to such an enormous extent that the waters of many, where city sewage enters them, are actually offensive, and during the summer months, owing to the stench, the passenger traffic is forced to the railroads. ..... In some of these streams the whole surface of the water for some distance below sewage entrance is in a state of commotion owing to the evolution of gas bubbles, and the water is so foul that it cannot be used in the boilers of the little steamers that ply across the rivers." Rivers such as the Thames and Mersey are bad enough we know, but we can hardly accept the statement that they are so bad as to force the passenger traffic to the railroads. We opened this book with expectant interest, but we fear we closed its pages with a feeling akin to disappointment.

The Practice of Medicine. By M. CHARTERIS, M.D. Sixth Edition. London: J. & A. Churchill. 1891.—Amongst the smaller text-books of medicine which abound there is none that is more compendious or concise than this work of Professor Charteris. It has long, and deservedly, been a favourite with the student. The author within the limits imposed on him has certainly contrived to embody a vast amount of information, which is well arranged and accurately expressed. He has, moreover, revised the work with care, and introduced much new matter in accordance with the progress of science. We find, for instance, a succinct notice of "tuberculin," with the reminder, however, that the new methods advocated in the treatment of tuberculosis "do not supplant in any degree the teachings of old experience. Every remedy that was useful before will be useful still; for all that is new is not true, and all that is true is not new" (p. 144). There are several subjects which, perforce, are treated but scantily; but the more common and important diseases are adequately discussed, especial prominence being given to treatment. The addition of a therapeutical index, and most necessary and valuable hints upon the art of prescribing (fast becoming a lost art!), add to the usefulness of the book, and we are pleased to find a full glossary also appended. The beginner in medicine can safely study this work, which is sound and judicious, and even the more advanced may profitably refresh his memory by having recourse to its pages.

Christmas Books.—Messrs. Blackie and Sons' (Old Bailey, London) contribution to the literature of the season is rich as usual, alike in quality and variety. The following works have come to hand:—*A Dash for Khartoum:* a Tale of the Nile Expedition. *Held fast for England:* a Tale of the Siege of Gibraltar. *Redskin and Cowboy:* a Tale of the Western Plains. These three books are by Mr. G. A. Henty, whose tales of thrilling adventure are as well known as they are highly prized by young readers of the male sex. Other four are by various authors, and have interest for girls as well as boys. They are as follows:—*The Pilots of Pomona:* a Story of the Orkney Islands. By Robert Leighton. *Three Bright Girls:* a Story of Chance and Mischance. By Annie E. Armstrong. *Brownsmith's Boy:*

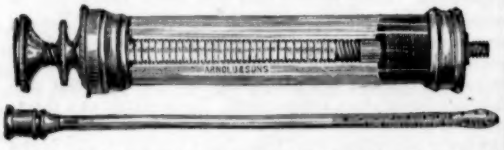
a Romance in a Garden. By G. Manville Fenn. *Silas Verney:* a Tale for Boys. By Edgar Pickering. These books are all tastefully got up, are beautifully illustrated, and may be heartily commended as a group from which selections may be judiciously made for Christmas presents to youthful acquaintances.

Medical Diaries for 1892. — Cassell and Company, Limited, London, Paris, and Melbourne, have forwarded us some specimens of the Medical Diaries which they have published for Letts's Diaries Company, Limited. The first of these is called *Letts's Medical Diary*, and provides especially for all matters of interest to the general practitioner, including space for the entry of daily visits, accouchements, vaccinations, &c. It contains information arranged for ready reference and of a kind which medical men have frequently occasion to use. The books are handsomely bound in strong leather cases, and can be had of different sizes.——Charles Letts and Co., 3, Royal Exchange, London, and Barroughs, Wellcome, and Co., Snow-hill-buildings, London, E.C., have also forwarded to us a *Charles Letts and Co.'s A B C Medical Diary and Visiting List*, which they publish jointly. It combines with the diary the prescriber's index of remedies and a posological table prepared specially for ready reference by medical men. The usual postal information and useful memoranda are found in this volume. It is a very compact and elegant diary, and as a record of daily medical work will be found valuable.

New Invention.

NEW INTRA-UTERINE APPLICATOR.

THOSE who are in the habit of frequently making applications to the interior of the uterus with Playfair's or other probes covered with cotton wool and dipped in iodised phenol &c. must have noticed that in very many cases all the solution is pressed out of the wool in passing it through the os and cervix, and runs down into the upper part of the vagina or speculum, where it is worse than useless, none remaining to be applied to the uterus. The new applicator entirely avoids this, and enables the operator to apply an accurately measured quantity of solution to the whole



of the uterine walls; it can further be so used (if thought advisable, after the swabbing) as to withdraw any excess of the application and to leave the uterus entirely free from fluid. The instrument, as will be seen from the illustration, consists of two parts—viz., a graduated syringe to contain iodised phenol or other solution, with a screw stop, by which any number of minims can be injected, and, next a removable hollow probe with a large number of very fine perforations in the distal inch and a half. This part, covered with cotton-wool, is to be passed into the uterus, and then by slowly pressing the piston it becomes uniformly saturated, and the application can be effectually made. In hospital and large gynæcological practices it is proposed that a number of the probes should be sold with each injector, so as to save the time necessary to remove and reapply the cotton-wool. Some, however, may consider the wool unnecessary, in which case one probe would of course be sufficient. Messrs. Arnold and Sons of West Smithfield have carried out my suggestion to my entire satisfaction, and will supply the instrument.

H. ERNEST TRESTRAIL, M.R.C.P.Ed., F.R.C.S.Ed.,
Physician to the Glasgow Hospital for Diseases of Women.

THE EPIDEMIC OF TYPHOID FEVER IN DUBLIN.

REPORT BY SIR CHARLES A. CAMERON.

TYPHOID FEVER is the only one of the principal zymotic diseases which, in Dublin, shows no tendency to decline. Typhus fever has almost become extinct. Small-pox no longer exists. Diphtheria and diarrhœa are less fatal in Dublin than in the English large towns. During the year 1891 there have only been two deaths from measles, three from scarlet fever, and four from typhus fever in the city of Dublin. The zymotic death-rate during the ten months ended Oct. 31st, 1891, was only 1·56, which was below the average of the English towns. Typhoid fever has, however, been very prevalent in Dublin and its suburbs since August, and as the disease, as already stated, is always relatively more prevalent than other zymotic diseases in Dublin, it is not extraordinary that, with an epidemic of the malady over the United Kingdom, Dublin should have more of the disease than usual.

I cannot satisfactorily account for the prevalence of typhoid fever in Dublin at present. It cannot be due to the defective state of sewers or sanitary accommodation, because they are neither better nor worse in the autumn than at other times of the year. Of course, defective house drains at all times help to spread the disease, but it seems to become in the autumn and early months of winter a miasmatic disease—that is, a disease the germs of which exist in the soil, and ascend from it into the atmosphere at some seasons in greater numbers than at others.

A record of all the cases of typhoid fever (and other zymotics) notified to the Public Health Department is preserved in a large volume immediately on the receipt of every case of typhoid fever. A careful inspection of the premises in which it had occurred was made, and the results recorded in the same volume. I find that in about one-fourth of the cases there were sanitary defects, some of them serious. In 75 per cent. at least of the cases no sanitary defects were observed.

The disease seems to be more prevalent amongst the upper and middle classes, and to be equally rife in city and suburbs. It is evidently milder in type than was the case in 1889

I have prepared a statement showing the number of fatal cases in the periods August to October in the years 1887-91, also the admissions of typhoid fever to hospitals, and total zymotic deaths in same period. In this statement it will be seen that although there were more cases in 1891 as compared with 1889, when typhoid fever was prevalent, there were fewer deaths in 1891.

I regret that I can no more account for the increase of typhoid fever in Dublin than sanitarians have been able to explain why in the late months of the year this disease occasionally assumes epidemic proportions throughout large portions of the world. It has shown a decline within the last week, and will probably soon sink to its ordinary proportions.

In conclusion, I may state that the pipe water of Dublin is periodically carefully analysed, and I am quite satisfied that it is in nowise the cause of typhoid fever.

CHARLES A. CAMERON,
Nov. 24th, 1891. Superintendent Medical Officer of Health.

IN MEMORIAM.—The students of the Leeds Medical School have presented to the weekly board of the General Infirmary an engraved tablet (which is to be placed in the vestibule) in memory of the late Mr. A. F. McGill, F.R.C.S., and professor of surgery to the Yorkshire College.

ST. MARY'S NURSES' HOME AND COTTAGE HOSPITAL, PLAISTOW.—Lady Maud Wolmer last week performed the ceremony of opening this institution. The hospital will accommodate six beds for women and two cots for children. There is also an out-patients' ward. In the Nurses' Home there will be a staff of thirty trained nurses. By a trust deed the vicar of Plaistow has assured, in perpetuity, the continuance of these institutions for the benefit of the poor of Plaistow.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 28, 1891.

WE have frequently and for many years urged that the most essential reform in the curriculum of study for the medical profession consists in a thorough overhauling and tightening up of the preliminary examination in Arts. Candidates who cannot pass a higher standard than that which is at present insisted on simply begin a professional study which they cannot comprehend, and for which, by lack of a proper educational training, they are unfitted. These constitute a large proportion of the rejected at the examinations of the various licensing bodies, and of the disappointed in their after professional career. We are pleased, therefore, to see that the General Medical Council has revised its regulations in regard to preliminary examination in general education, and that a new code will come into operation on Jan. 1st, 1892. It is significant of the piecemeal manner in which alterations in the medical curriculum are introduced that a five years' period of study begins on Jan. 1st, 1891, and that these changes in the preliminary education are deferred until Jan. 1st, 1892. On this latter date the Preliminary Examination will embrace the English Language and Latin as at present, but the Mathematics will include the subject matter of the first three books of Euclid, instead of the first book only, as is now the case. Elementary Mechanics will then be no longer required at the Preliminary in Arts. This is a most desirable alteration. We never could understand why this subject, which is in every way connected with Physics, and should be included in every preliminary examination in Science, should have been made compulsory on medical students (except students in universities) at their earliest examination, and why they should not have been registered first, and then allowed to pass in this subject subsequently. Statics, Dynamics, and Hydrostatics are seldom well taught in schools, and the teaching of experimental science without practical laboratory instruction and demonstration is quite illusory. We suppose that the General Medical Council will, when the subject is removed from the Arts curriculum, insist on its being included in the Science course of the first year, on the introduction of which in every curriculum we hope there will be an absolute and unanimous insistance. Botany, Zoology, and Elementary Chemistry will also be taken out of the list of optional subjects in January, 1892, and will also doubtless be relegated to their proper place in the Preliminary Scientific curriculum. But more important by far than these details is the regulation that "the Council will not in future give any certificate of pass in Preliminary Examination in General Education unless the *whole* of the subjects included in the Preliminary Examination required by the Council for registration of students of medicine *have been passed at the same time.*" If this is strictly carried out, and the list of examining bodies entitled to give certificates for registration to medical students be occasionally revised, a very important reform will be effected with regard to professional education—one perhaps intrinsically more valuable than the lengthening of the curriculum. Hitherto we have only referred to the *minimum* examinations in Arts, but the recent acute discussion and voting on the retention or non-retention of Greek at the Previous Examination at the University of Cambridge compel us to say a few words in relation to the higher preliminary examinations. Teachers in Medicine, Surgery, Anatomy, and Physiology are mainly those who have received their education at, and have been trained according to the curriculum of study of, one of our Universities. Students should acquire some knowledge of the past history of the sciences which they have to learn, and at least a knowledge of the derivation of the technical terms which they must use. An anatomist who does not know the meaning of the word "acromion," a physiologist who only knows that the name of "myograph" is applied to an instrument which records muscle curves, or a physician who only uses the term "diphtheria" for a disease without knowing why it is specially given to a malady attended with a definite pathological phenomenon, obviously must labour under certain disadvantages. For medical teachers, if not for medical students (and these students will in turn become teachers), a knowledge, at any rate, of a Greek vocabulary—we will not say of literature, for the utilitarian in education has given this up, on the side of German as well as on the side of Greek—is almost an imperative necessity, and it is only fair to ask the older universities to keep up this standard for the benefit of the higher medical education. At the University of London neither Greek nor German is compulsory at the examination for matriculation; and hence we find that the students have neither obtained the advantage of a knowledge of the Greek scientific terms, nor the ability to read modern German scientific treatises, which we are informed is the proper alternative. As a study of literature in either language is no longer urged, we have left the academic aspect out of sight, and only demanded the retention of Greek in the preparation of our best students from a strictly technical and utilitarian standpoint.

IN a leading article in THE LANCET of Aug. 1st, 1891, we urged that, in spite of the Food and Drugs Adulteration Act, adulteration was not an obsolete iniquity, and that, in the face of certain evidence obtained directly by ourselves, sophistication could not be considered as merely a fact in ancient history. We alluded to the apathy which seems to have seized the authorities who are responsible for putting the Act into operation; and, in support of this, instances were cited in which it was known that few food or drug samples, if any at all, had been examined during the period of a whole year. The fault lies not with the public analyst and not with the inspector, both of whom are appointed under the Act, but with those who are authorised to direct these officers. All we have said, all we have urged, is now fully justified and confirmed by the recent returns of the analyses which have been made during the past year. The number of analyses made under the Act amounted to 27,465, or one to every 946 of the population, and of these 3069, or at the

rate of about 11 per cent., were found to be adulterated. In London one sample was obtained for every 557 persons, while in the provinces one only was taken for every 1075. Within the jurisdiction of the County Councils of Oxford, Hereford, Pembroke, Monmouth, Cambridge, and the Isle of Ely, no steps whatever were taken by the authorities who are charged with the enforcement of the law; and the same may be said of thirty-two boroughs, some of which, like Northampton, Devonport, Tynemouth, Carlisle, Scarborough, and Dover, are places, it will be admitted, of no inconsiderable population. In several districts in London, as also in many counties and boroughs in addition to those alluded to, the number of samples taken was totally inadequate. Surely these are facts which call for immediate inquiry, and facts which should command, as soon as possible, the serious attention of our legislators. There can be little doubt that this neglect on the part of the proper authorities to carry out the provisions of the Act is largely, if not wholly, due to the difficulty which is so often experienced in bringing a case for prosecution to a successful issue. Nearly every week an example is furnished of the difficulties that are encountered in the working of the Food and Drugs Act. The present state of the law would seem, at least in many instances, to offer the public little protection against fraudulent purveyors, and when the authorities do exercise their functions, their efforts are consequently more or less handicapped. Only a few weeks ago a provision dealer in the East of London, when charged with having sold butter which on analysis was found to be only "margarine," ingeniously raised a question as to whether he, the defendant, not being the "physical purveyor" of the article sold, could be convicted as the actual vendor. In his decision the magistrate said that there were two questions in the case—one of fact and one of law. As to the fact, the defence contended that his shopman was to blame, suggesting that a mistake had been involuntarily made. That suggestion had, however, only been put forward when the defendant was brought into court, and was not attempted to be supported by the evidence of the shopman. Therefore he found as a fact that the shopkeeper (the defendant) authorised the sale, and that the sale was fraudulent. On the question of law, the contention that the defendant could not be convicted because he took no part in the "physical act" of selling, that being the act of his shopman, was attempted to be supported by the case of HITCHIN *v.* HINDMARSH. He, however, found that though the High Court had decided that the "physical act" might in some cases be sufficient to constitute a seller, it was not in all circumstances essential. If the principal, being to blame, was to be acquitted because he did not perform the "physical act" of delivering, any knavish tradesman, by avoiding serving at his own counter, might escape the consequences of selling adulterated food. As the magistrate added, it would be an unfortunate thing if the contrary were to be held law; but if the defendant wished to contest the point, he would willingly grant a case for the consideration of the High Court. Counsel for the defendant, however, intimated that his client would submit to the magistrate's judgment, and accordingly a fine was imposed.

The adulteration of butter has recently occupied the serious attention of a committee appointed by the Paris Chamber. All adulteration of butter is prohibited by the Bill which they have since framed. It provides that makers and retailers of margarine shall notify the authorities to pay 2 fr. per 100 kilogrammes and to affix a label. Violation of the law is to be punishable with from six months to two years' imprisonment. Exception, however, is made with regard to omission to affix the label, which is punishable with imprisonment for a period ranging from a fortnight to three months. The Danish Government, again, actuated by a laudable desire to maintain a high standard of excellence for Danish butter, have passed very stringent laws on the subject of "oleo-margarine." It is stated that one effect of these regulations is noticeable in the cheesemongers' shops, where many of the smaller pieces of cheese exposed for sale are labelled "oleo-margarine cheese," instead of bearing the fancy names previously adopted. We might with advantage, perhaps, take a hint from our continental friends, whose laws on the subject of adulteration probably convey a clearer and less unmistakable meaning than our own, and therefore are less likely to give rise to petty legal quibbles, which so often form a loophole of escape to fraudulent dealers in England.

WE gave some particulars in a recent issue regarding the remarkable chalybeate spring at Flitwick in Bedfordshire, to which attention has been of late directed. The water is described as of a clear sherry colour, acid in reaction, of a constant temperature of 45° F., not unpleasant to the taste, and containing large quantities of the persalts of iron. No less a quantity than 170·80 grains of the persulphate of iron to the gallon has been shown to be present in this water. Warming suffices to precipitate a considerable portion of the iron, the precipitate containing as much as 85·24 per cent. of ferric oxide combined with a small amount of sulphuric acid. It is asserted that iron in this form is well adapted for speedy absorption and assimilation, and if this hope should prove well founded a prosperous future may be in store for the Flitwick spring. The water is found oozing through a layer of black peat, the surrounding soil consisting of crumbly peat, containing a very high percentage of the oxide of iron. "Underneath the peat is a stratum of marly clay, containing as much as 76 per cent. of oxide of iron, in conjunction with alumina and phosphoric acid. Below this is a substratum of dark sand, which is said to belong to the Cretacean period." It would appear that no other chalybeate spring in the British islands contains iron in the same form as these Flitwick waters. No doubt they will be subjected to careful trial. A remarkable point would seem to be the absence of carbonic acid, either free or in combination.

The attention directed to the Bedfordshire spring may serve as a reminder of the resources of Europe in the matter of ferruginous spas. Of these the best known are Schwalbach in Germany, Spa in Belgium, Levico in the South Tyrol, Luxeuil in France, Tunbridge in England, St. Moritz in Switzerland, Ballynahinch in Ireland, and Orezza in Corsica. These springs differ much in the extent of their mineralisation and in their temperature. The waters of St. Moritz, Spa, Luxeuil, and Tunbridge are feebly, those

of Levico, Schwalbach, and Orezza strongly, mineralised. The temperature of the St. Moritz water is 40° F., almost the same as that of the Flitwick spring; that of the Schwalbach water from 48° to 50° F.; that of Levico from 46 to 50° F.; while that of the Luxeuil spring varies from 70° to 133° F. The great merit of the Schwalbach water is its large impregnation with free carbonic acid, which makes it sparkling and pleasant to drink. It is a pure iron water, containing very few other mineral ingredients. Spa is also an instance of the pure ferruginous spring, but it contains much less iron and carbonic acid than Schwalbach. Tunbridge contains about the same amount of iron as Spa, but its fame as a watering-place is a thing of the past. Orezza occupies an elevated position in the island of Corsica, and possesses one of the strongest ferruginous springs in Europe. Luxeuil, in the Vosges, possesses some remarkable merits, and is less known than it deserves to be. Iron is present in the waters in the form of phosphate and carbonate, and while the mineralisation is comparatively slight, the high temperature of the waters and their digestibility give them much efficacy in the treatment of those affections in which the use of iron is indicated. The secret of the digestibility of the Luxeuil waters is said to lie in the combination of iron with a little arsenic and a strong proportion of manganese, five or seven parts of manganese to twelve of iron. At this spa we are informed by our French *confrères* that anæmia "se guérit comme par enchantement." Another very remarkable water of this type is that of Levico, which is described as an arsenio-ferric water containing arsenious acid and sulphate of iron. Most of the ferruginous springs contain other mineral ingredients in addition to iron. Of these lime is perhaps the most frequent, and amongst others may be mentioned soda, potash, arsenic, manganese, lithium, and silica. It need hardly be said that the quantity of iron is not a sufficient gauge of the utility of any given chalybeate spring. Its digestibility is a much more important factor, and this would seem to depend upon the special form of the metal present, its combination with other mineral ingredients, the temperature of the water, &c. Impregnation with free carbonic acid, as in the case of the Schwalbach spring, is a point of great importance, increasing, as it does, the palatability of the water and diminishing that inkiness of flavour which is the great drawback of the chalybeate spas.

The therapeutic indications for the ferruginous springs are sufficiently clear. Anæmia, chlorosis, general debility, impaired convalescence after fevers or acute inflammations, some varieties of dyspepsia, hypochondria, some uterine affections, are among the ailments in which they may be expected to prove useful. Most of the resorts mentioned add important climatic and scenic attractions to their wealth in mineral waters. St. Moritz, at an elevation of 6000 feet above sea-level, and surrounded by the magnificent scenery of the Engadine, is one of the most bracing resorts in the world. Schwalbach and Luxeuil, both at an elevation of about 1000 feet, are so well protected by hills and forests that they rank among the mild and soothing resorts. Spa, elevation 1000 feet, and Levico 1700 feet, may also be ranked among this class. Orezza is intermediate between the two classes. It is hardly necessary to say that the iron springs are contraindicated in such cases as inflammatory conditions, nervous irritability, epilepsy, cardiac disease, &c.

WE have frequently referred to the undesirability of communicating the strictly professional records of medical cases to lay journals. In some instances, as in the case of members of the Royal Family, bulletins containing information as to the progress of the illness of the invalid must be published, and in the case of the illness of Prince GEORGE of Wales, no objection can be made on the ground of want of professional delicacy and propriety. The fact that "he had passed a good night and that his strength was maintained," or that "he had passed a quiet day and the increase of febrile disturbance had subsided," gives the public every information that is necessary to be published, and is quite satisfactory to, and explicit enough for, the readers of non-medical journals. When further details are reported—as, for example, the amount of albumen in the urine of an eminent patient—the limits of good taste and professional propriety are exceeded. If the lay papers print detailed reports, we should have thought that at any rate they would be accurate; and when, in addition to erroneous details, letters are published containing directions as to the treatment of a given disease, we cannot refrain from making a strong protest. The issue of *The Times* of the 23rd inst. shows how necessary it is that such a protest should be made. It states, in reference to Prince GEORGE, "his respiration is almost normal, being about thirty-three per minute." If this statement were true, some complication would be indicated, probably of a pulmonary character; but it is evident that the writer is ignorant of the elementary physiological fact that the *normal* number of respirations in the adult is only from fifteen to twenty. In a letter reproducing a memorandum by the late Sir WILLIAM GULL, forwarded by Major-General ELLIS, and published in the same number of *The Times*, a number of propositions are laid down which might considerably fetter the action of a medical attendant in the treatment of a severe case of enteric fever, and which, if their observance were insisted on by the friends of the patient, might seriously prejudice, or even altogether prevent, his recovery. Most of the details concerning the nursing of the patient are very judicious, but Sir WILLIAM GULL'S medical opinions in 1874 are surely not to be taken for all time as the rules which are to guide physicians in typhoid fever, and from which they are not in any case to depart. For example, it is laid down (iv.): "As the fever develops and the strength grows less, light food should be given at short intervals—i.e., water, toast-water, barley-water, milk-and-water, light broths." The medical attendant is the best judge of how much and what food must be administered. No two cases require the same, and many serious cases would die if food in concentrated forms, such as milk, beef-tea, and meat-juices, were not given much more freely than is indicated in the above paragraph. Again (v.): "If there be restlessness or much agitation of the nerves, wine (port, sherry, or claret) or brandy in moderate doses at short intervals. This must be directed medically, but in general it may be said that the amount required is that which induces repose and sleep." Surely the amount

and nature of the stimulant are to be absolutely laid down day by day by the medical attendant, and in so doing many other factors—such as the state of the pulse, the amount of food ingested, &c.—must also be taken into consideration as well as repose and sleep. In fact, the patient must be periodically disturbed in serious cases for the administration of food and stimulants. In rule xiii., Condy's fluid is suggested for disinfecting the discharges from the bowels, whereas it is one of the least efficacious chemicals that could have been mentioned for this special purpose. For many purposes it is most useful, but we question if any chemist or bacteriologist would rely on it for rendering the excreta in typhoid fever innocuous. It is much to be regretted that such details should be scattered broadcast. Every physician in charge of a case of typhoid fever is always placed in a sufficiently anxious position, and if the friends or relatives of the patient (as in many cases they doubtless will) endeavour to restrain his freedom of action by the late Sir WILLIAM GULL'S rules, his position will be made almost intolerable. Such a course may, indeed, even lead to serious or fatal consequences to the patient.

Annotations.

"Ne quid nimis."

THE ELECTION OF DIRECT REPRESENTATIVES: A DECISIVE POLL NEEDED.

THE voting papers issued in connexion with the coming election of direct representatives have by this time reached the hands of the electing practitioners, and a considerable number of them, we may feel assured, have already been sent in to the returning officer. We are also not without good ground for the belief that professional interest in this important matter grows with time. The copious correspondence and energetic discussion of the last few weeks will at least bear this encouraging interpretation. The whole electorate must recognise the significance of a heavy poll. Now, more than on a previous occasion, the policy which established the principle of direct representation stands committed to receive the verdict of medical opinion. Do practitioners after five years' acquaintance adequately value the privilege thus entrusted to them? Do they duly appreciate the necessity of exercising it with discrimination? Do they approve the manner in which their chosen delegates have acted on their behalf during the period of office allowed them? If we are to have a definite answer to these questions, now is the time to give it, and the opportunity thus afforded cannot be permitted to pass by any member of the profession without allowing the imputation of culpable lukewarmness on his part, and without lowering somewhat the repute of direct representation. Let us, therefore, now most earnestly and emphatically endorse the "one request" made by the three retiring and re-eligible representatives for England, that every member of the profession will record his vote, and thereby show the interest he feels and takes in this matter. At the last election some 5000 voters in England and Wales alone did not think it needful to register their opinion by voting for one candidate or another. Perhaps there was then some excuse for them. The whole procedure was new in principle and method; the work and the capacity and claims of the workers alike imperfectly understood. Now things are very different. Whether we have regard to what has been done or attempted, or designedly left undone, we can have no doubt that certain crying needs have been met, and met with excellent judgment. Important advances have been made in the regulation of medical education. The pretensions of illegal practice have been dealt with as far as allowed by the existing law, a limit which we hope to see much further extended. In their treatment of these and other matters brought under their notice the representatives of practitioners have shown a degree of vigilance, tact, and activity which clearly prove the wisdom of the choice which five years ago selected them for this work. We are confident that in the history of their past services we have the most substantial guarantee of future usefulness, and we therefore advocate their re-election. We would nevertheless warn their supporters once more not to throw away a single vote from any false confidence in the certainty of their return, and we would especially call upon all practitioners, whether agreed with us or not as regards the persons to be elected, to show by their suffrages a right sense of their position in a self-governing body.

THE ARMY MEDICAL STAFF.

THE new regulations for admission to the Army Medical Staff, together with extracts from the Pay Warrant and Army Medical Regulations as to promotion, rates of pay, and pension, have been recently issued by the War Office. Comparatively few changes have been made beyond those that were necessary to bring the regulations in accord with the altered conditions of the service introduced by the present Government. From a brief analysis of these regulations we gather the following: Candidates for the Medical Staff must be between twenty-one and twenty-eight years of age, possess two diplomas, and be registered under the Medical Act; but candidates holding a diploma from the Society of Apothecaries under the Act of 1886 will be deemed to possess the double qualification. Competitive examinations will be held twice a year, the Secretary for War retaining a discretionary power, as heretofore, of filling half the number of appointments from qualified candidates recommended by schools of medicine at home or in the colonies. No candidate will be allowed to compete on more than two occasions. The subjects for examination remain the same. The Secretary of State reserves his right of rejecting any candidate who may show a deficiency in general education. A Surgeon-Major-General may be retained on the active list for two years beyond the prescribed age for retirement at sixty, where the interests of the public service would be materially advanced by it. Under the head of "promotion" the recommendation of the Director-General is necessary for the promotion of a Surgeon-Major to the rank of Surgeon-Lieutenant-Colonel on completing twenty years' full-pay service. The examination of Surgeon-Captain for promotion to Surgeon-Major may be taken at any time after the seventh year of service. Any higher qualification, such as M.D., F.R.C.S., &c., or any diploma in hygiene and State medicine, taken after the date of publication of these Regulations, will not exempt surgeons from this examination. Under the head of "sick leave" it is stated that sick leave absence on full pay may be granted to an officer of the medical staff on the same conditions as those laid down for regimental officers.

THE DEATH OF THE EARL OF LYTTON.

WE learned with regret of the death of Lord Lytton, the British Ambassador in Paris, on the 24th inst., either from failure of the heart's action or from embolism. We are in a position to state that he had been in an indifferent condition of health for some considerable time past, and for

nearly a year suffered from vesical irritation. During a recent visit to England he caught a chill, which precipitated an acute attack of cystitis, with retention. This latter was relieved by Mr. Thomas Smith, who saw the patient in conjunction with Dr. Norman Moore. On his arrival in Paris he was seen by Dr. Prendergast, who has since been in constant attendance, and who found the vesical inflammation had developed a most acute form, accompanied by much suffering, prostration, and febrile disturbance, with an abundant discharge of purulent matter from the bladder. His Excellency was subsequently seen on several occasions by Professor Guyon, in consultation with Dr. Prendergast. As the result of treatment the distressing symptoms had greatly ameliorated, the fever had subsided, the patient's appetite and strength were all along well maintained, and his condition generally much improved, so much so that convalescence may be said to have been reached. It may be stated that no valvular or organic lesion of the heart had been noticed. The mind was clear throughout, and his Excellency had but a few hours earlier spoken most cheerfully and gratefully to Dr. Prendergast of his progress, and it may be added that up to a few moments before the fatal crisis "Owen Meredith" was engaged composing some lines of what must now be his last poem.

PUBLIC HEALTH IN ITALY.

THE efforts made in the Italian peninsula to improve the hygienic conditions of its inhabitants are greater than is commonly believed, and already, in centres of population like Florence, for example, the public health is maintained at as satisfactory a level as in the best-managed of European capitals. But few outsiders have any notion of the tremendous leeway Italian sanitation has had, and still has, to make up. If they only knew how little ahead of the mediæval standard Italy was when from a "geographical expression" she became a "great power," they would make more allowance for her present backwardness and give her more credit for what she has already achieved. The latest "inchiesta amministrativa" (administrative inquiry)—that of 1885—is now before us, and what a spectacle does it reveal! Let us take a few samples of Italy's hygienic *ensemble* of that year. She has 8258 communes, and of these more than three-fourths (the exact number is 6404) had no drains in the main streets, not even for carrying off rain-water. The household refuse of every kind was simply flung out to await the office, sometimes only the convenience, of the scavenger. Ninety-seven communes alone out of the above total had a regular sewage system in the modern sense. From the same official authority we find that in 3636 communes, representing about eleven millions of population, the vast preponderance of the houses were without latrines (English waterclosets are confined to the chief towns, and in these to the hotels or the abodes of British or American residents). In other 1286 communes, with 2,762,000 inhabitants, latrines were absolutely unknown. Another revelation, always from the "inchiesta amministrativa" of 1885: Communes to the number of 1881, with a population of nine millions and a half, had drinking-water of a distinctly tainted and unwholesome quality, while as many as 1495 communes (6,000,000 inhabitants) announced that such water as they did possess was quite insufficient in quantity. In such conditions can we wonder that the mortality of Italy is so high? "If," says an eminent Italian physician, "we put the death-rate of Italy, blessed as she is with a climate so splendid, in comparison with that of England, whose climate is so inclement, we find that in proportion to population the deaths in Italy are more by 300,000 a year—almost double!" Nor is it her semi-savage hygienic arrangements alone that contribute to her high death-rate. Want of cultivation leaves great tracts of her territory a prey to malaria, 2823 communes out of the total of 8258 being subject to that scourge. Eleven millions and a half of her people—in other words, 38 per 100 of the entire population—were in 1885, according to the "inchiesta amministrativa," sufferers from intermittent fever. In these communes malaria is endemic. In other 2025 (always according to the same authority), with a population of 8,000,000, sporadic cases of malaria are never absent. Two-thirds of the Italian population are visited by this fever more or less severely; and though the number of deaths (about 28,000 annually) is very great, there is a large permanent sick list from the same cause. The influence thus exerted on the physique of the population is indeed grave. "For every death from malaria," says the physician above quoted, "there are ten invalids from it, and for every one of these invalids there have been 100 days of illness and inability to work; so that to every death there correspond 1000 days lost to labour, and hence on the total, from twenty-five to twenty-eight millions of working-days lost!" The same authority adds: "In a tour I made in the Basilicata, the Abruzzi, and the Calabrias I found the village shops mean and squalid, with the one exception of the *farmacie* (drug-stores), and these were gay with crystal jars and gilded woodwork, polished shelves and handsome appointments—the prosperity of death!" Sulphate of quinine, he says, is the one remedy, but it is dear and bad, adulterated with salts of cinchonidine and worse ingredients, so as often to be inert, to say the least. Pure and cheap quinine may, he thinks, be provided by Government as easily as it furnishes pure vaccine lymph to the rural and urban dispensaries and vaccination stations. But the activity of Government should certainly not stop there. The reclamation of the malaria-breeding lands—the true "Italia irridenta"—should be one of its earliest and most energetic undertakings. Such action, concurrently with that of the hygienic rehabilitation of the towns, would in a few years do more for Italy than all the schemes of fiscal readjustment and financial retrenchment on which she is now so intent. Not only would it improve the physique of her sons, whether for industry or war, but it would bring her in far greater number the tourist population, which must always be one of her best sources of revenue, the falling off of which has of late years been so severely felt throughout her entire economy.

THE BIRMINGHAM CORONERSHIP.

THE appointment of a coroner for the city of Birmingham vacant by the death of the late Mr. Henry Hawkes, which is to be made on Dec. 1st by the Town Council of that city, is continuing to excite increased attention as the election period approaches. Candidates have stood forth out of the midst of the Town Council desiring the appointment; others have sprung up from beyond the pale of the municipal body, and have sought election on their own intrinsic merits, as it were. The candidates for this office come from the legal and from the medical profession, and the selection will no doubt have many difficulties. Mr. Wakley, the founder of THE LANCET, in the exercise of his duties, said on one occasion: "I am more than ever convinced that, in the absence of medical knowledge, the efficient discharge of the functions of the Coroner's office must be the effect of accident. It obviously cannot be the result of a rational and discriminating deliberation." The lapse of years has not altered the truth of this proposition. We hold that it is essential in the interests of the public that the holder of this office should be possessed of a medical training, a sound judgment, and a sufficient knowledge of

legal routine and technicality to enable him to exercise his discretion aright. Two candidates who possess these essentials are in the field—Mr. Oliver Pemberton and Mr. C. L Drew; and the Council has at its disposal the material requisite for forming a judgment on the merits of the various candidates for the exercise of the functions of coroner.

INDIAN SANITATION AND NATIVE FESTIVALS.

THE difficulties which attend sanitary administration in India, and notably in connexion with the spread of cholera, are often very insufficiently allowed for by some of our European critics, who, having grave sanitary faults at home which make them especially afraid of cholera, are much more prepared to cavil at the rate of sanitary progress in our eastern empire, than to work at anything approaching even the Indian rate with a view of abolishing the conditions favourable to the diffusion of that disease which are lying under their own eyes, and often gravely offend the noses of many who visit their countries. One such difficulty is referred to in a recent issue of the *Madras Times*, where the question of Sanitation at Native Festivals is discussed, with special reference to a supposed relation between the autumnal prevalence of cholera in Madras and the feast at Periapolliam. It is wellnigh impossible to maintain, at the localities where religious feasts are held, sanitary arrangements which are, at long intervals only, suddenly required for assemblies of some fifty to sixty thousand pilgrims, many, if not most, of whom are drawn from the lowest and the most dirty classes, and who lack the inherited knowledge that Europeans may be expected, in some measure at least, to have acquired as to the value of cleanliness in relation to health. The task imposed both upon the Government and the local authorities is thus a very heavy one, and one which it is most difficult adequately to meet. But, as our contemporary indicates, there are further difficulties. Certain European states do not hesitate, even when a mere fracas takes place at a religious gathering or festival, to impose restrictions which practically put an end to further similar assemblies. British tradition is, however, altogether opposed to the imposition of restrictions that savour of any interference with religious liberty; the policy of religious neutrality in India must be maintained, and hence the difficulty cannot be solved by merely prohibiting an assembly on the assumption that it is likely to lead to mischief and disease. And further, local responsibility in matters relating to public health is gradually being inculcated in India. This system is often attended with drawbacks at first; but if these can be overcome, the ultimate gain more than compensates for the early failings. In India reports are made, through the Sanitary Commissioner, to the Government as to the shortcomings observed on the occasion of such festivals, and the local boards are communicated with as to the matters which need attention before the next assembly. These recommendations have hitherto often been neglected, and they have had to be repeated, and even the repetition has at times been without success. Recently, however, the Government have gone further. They have attached responsibility to the presidents of the local authorities, and these presidents have been called upon to explain why, at the festivals last held, the suggestions of the inspecting officers and of the sanitary commissioner as to the previous festivals were not fully and carefully attended to. This is as it should be. The system in many respects resembles that of our Local Government Board inspectors and their recommendations. But, at home, we have further recourse to the compulsory powers vested in the Central Government as to defaulting authorities; and so should the Government act in the case of maintained default in India. The circumstances are not, we frankly admit, in all respects alike. No local authority in England has ever been called upon to make arrangements adapted to such sudden and very temporary influxes of extraneous hordes of human beings as become necessary in places in India where religious festivals are held. But, on the other hand, the sanitary demands of the Indian Government fall short—for such purposes as are here in question—of the demands made upon authorities in this country; and, after all, pilgrimages might probably be made to pay their own way, and perhaps often do so, by reason of the increased local financial resources which the advent of the pilgrims brings about. In conclusion, we would, however, revert to the fact that these Indian festivals, which sometimes serve as centres for the diffusion of epidemics, present difficulties of which but too little note is taken by critics who live in countries which, in this respect, present no parallel to India.

THE ILLNESS OF PRINCE GEORGE OF WALES.

IT is gratifying to learn that H.R.H. Prince George has now (Thursday) reached the eighteenth day of his illness without suffering any complications of such a character as to give rise to anxiety. The fever as measured by the temperature has not been severe, and in most respects it may be said to have pursued an average course. The maximum temperature, usually reached about 5 P.M, has been as a rule 102·8°. It has risen under the influence of disturbing causes as high as 103° and 103·4°, but for a short time only. The pulse has always been good, large and full without dicrotism. The diarrhœa has been moderate and has never required treatment. The abdomen, which has not at any time been much distended, has become almost normal in appearance. With a favourable course of the symptoms generally, there has throughout been a remarkable degree of depression of the nervous system, which, however, has been less severe for the last two or three days. The tongue also has been very dry and thickly coated. Bronchial catarrh, which set in rather late, has been unusually severe, and has necessitated considerable respiratory effort. There has been no hypostatic congestion of the lungs. The spots have been extremely numerous. The return of H.R.H. the Princess of Wales and her presence in the sick room have had a very favourable influence.

THE ACCIDENTS AND SEQUELÆ OF THORACENTESIS.

AN interesting abstract of a paper by Potain is given in the *New York Medical News* for Sept. 5th, 1891, on the above subject. The accidents that occur after thoracentesis may be due—(1) To the pulmonary congestion that follows the removal of the fluid, and is accompanied by an abundant albuminous bronchial expectoration. This bronchial hyper-secretion is a result of the entrance of air into the bronchial tubes, which are unaccustomed to this abnormal irritation, and is not dependent upon distension of the lung. (2) To syncope. When for any reason syncope is feared, special precautions should be taken to slowly remove only a small portion of the fluid. (3) To embolism caused by clots from the pulmonary veins. The heart may be arrested or the emboli may be carried into the large arteries of the brain, giving rise to hemiplegia; into the small cerebral arteries, occasioning abscess; or into other arteries, forming infarcts. Embolism of the pulmonary artery has been observed. When the action of the heart has been hampered by a large effusion, the pressure exerted upon the auricles, the torsion or the compression of the pulmonary veins, conjoined with a certain degree of irritation of the endocardium, may determine coagulation of blood within the heart. After thoracentesis, as soon as

the blood current is re-established, fragments of the clot may be detached and propelled into the pulmonary artery. Finally patients, especially those advanced in years, may succumb to cardiac weakness. When the circulation becomes easier the heart is unable to propel the increased volume of blood, and it ceases to act. The accidents consecutive to thoracentesis are not rare, although their frequency is not great. An important factor is the quantity of fluid removed. The operation should not be too protracted, and it usually suffices to withdraw one-half the fluid. The frequent transformation of serous into purulent fluid after operation must be attributed to the apparatus employed, and this accident may be altogether prevented by perfect asepsis. When the period for these accidents has passed, the ultimate prognosis will vary with the age of the effusion and the degree of compression to which the lung has been subjected. In the case of recent and moderate effusions the pulmonary expansion is readily restored. Under other circumstances no change can be detected by percussion or auscultation in the course of the operation, but in such a case on the next day it will be noticed that the dulness has disappeared. In other cases the lung expands rapidly, but on the following day the percussion dulness and the absence of the vesicular murmur are again noticeable. This is due to congestion of the lung. Should the bronchial hypersecretion be profuse and threatening, a valuable remedy is morphine subcutaneously; this arrests both cough and expectoration. For the intense congestion dry cupping will be found of service. Finally the fluid may reaccumulate; this is most apt to take place when efforts have been made to remove all the fluid. In such cases dry cupping, blistering, and diuretics should be employed. Digitalis should not be administered; nitrate and acetate of potash are the most serviceable drugs.

HONOURS FOR THE ARMY MEDICAL SERVICES

WE are glad to notice the names of two medical officers of the British and Indian Medical Services respectively in the *Gazette* conferring honours upon military officers for services in connexion with the operations in Burmah and other expeditions in India. We have to congratulate Surgeon-Colonel Alexander Frederick Bradshaw, Medical Staff, on being made a C.B., and Brigade Surgeon Robert Harvey, M.B., of the Indian Medical Service, on being included among the Companions of the Distinguished Service Order. There does not seem to be any doubt that the former officer (Surgeon-Colonel Bradshaw) will be the next P. M. O. of Her Majesty's Forces in India.

DANGEROUS DABBLING WITH MEDICINE.

THE remedies which are advocated in the columns addressed to correspondents in certain lay papers frequently provoke a smile, but not uncommonly they suggest very serious considerations. What would happen if anyone were foolish enough to try to follow the directions, and the not unlikely result of an inquest ensued? Would the jury rest content with a verdict of temporary insanity or would they, if the facts were duly reported to them, endeavour to attach the blame and the responsibility of the death to the ignoramus who had written the "advice," or to the editor who had printed it? A man of average intelligence would probably detect danger in the scornful tone so often assumed towards doctors and chemists, and the support tendered to "medical botanists" and "herbalists," still, the most unexpected things sometimes happen, and it is quite conceivable that an attempt might be made to try the virtues of a remedy if it could be obtained with little trouble. The following extract from a lay contemporary sufficiently indicates the amount of knowledge which characterises so many of these attempts at "advice." "*Vertigo.* This is often caused through overwork and insufficient blood supply to the brain. Medical botanists frequently effect a rational cure after doctors have utterly failed to do any good. The following is a remedy I can strongly recommend, and the ingredients can be obtained of any herbalist—not chemists: Of acid extract of sarsaparilla and peroxide of hydrogen each one and a half ounce, of the 4 per cent. solution of glonoin one ounce; to be mixed well together; dose, one tablespoonful in a wineglassful of water, to be taken before meals. The digestion may be aided by taking pure rhubarb pills, such as are made in large quantities by herbalists. The compound pills contain mercury, and are highly injurious to health." This is a gem. A drachm dose of a 4 per cent. solution of glonoin ought effectually to stop vertigo for all time. Perhaps it may be worth pointing out that the pharmacopœial dose of the *one* per cent. solution ranges from a half to two minims. It would be charitable to assume a misprint, but the probability of this is reduced by the discovery of mercury in compound rhubarb pills, and by the warning (which, after all, is a compliment) not to apply to chemists for this precious remedy.

VARICOSE ULCERS OF THE LEGS.

DR. DAVID FEJÉR publishes in the *Orvosi Hetilap* an account of his treatment of ulcerated varicose legs, which has the advantage of not requiring any long confinement of the patient in the recumbent posture. He first cauterises dirty-looking ulcers, if they are covered merely by a thin layer of pus, with nitrate of silver, those which are covered by a thick diphtheritic layer being treated with chloride of zinc, while fetid and gangrenous ulcers are destroyed by the actual cautery. According to the application, the dressing is changed in three, five, or ten days, during which time the patient has his legs elevated. Before the dressing is applied the ulcers and the surrounding skin are washed with water or a sublimate solution of the strength of 1 to 2000. A thin layer of iodoform is then dusted over the ulcers, which are ultimately covered with a mercurial plaster spread, after softening, to the thickness of two millimetres on thin calico cut somewhat larger than the circumference of the ulcers. This is followed by a cotton-wool tampon. The leg is then covered with a thin layer of Brun's cotton-wool, after the skin has been dusted with some innocuous powder. It is convenient to steady the dressing with a gauze bandage, so that the fine flannel bandage which completes the dressing may be easier of application. In some cases the plaster may be followed by an elastic bandage, which is especially appropriate in elephantiasis of the foot and in indurated ulcers, and may be combined with massage of the leg. The best powder for dusting the skin as a prophylactic against eczema is oxide of zinc or bismuth. Massage may even be practised on the bandaged leg, provided the ulcers have assumed a clean appearance. Under this treatment the patient may walk about in from four to ten days, and may after a few days more attend to his business. He must, however, when resting, always lie down, and even when he is sitting his legs must be in a horizontal position. Another advantage accruing from this treatment is that the dressing does not require changing until after three or four, and later on only at intervals of eight or ten, days; and that even indurated ulcers of long standing are made to heal by this process, provided no destruction of tissue has taken place which cannot anatomically be replaced, and provided also that the patient does not suffer from any serious constitutional affection. Dr. Fejér does not recommend skin-grafting, but prefers to loosen the skin surrounding the ulcer with the knife for a distance of ten centimetres or more, and then to approximate the loosened portions. This must, of course, only be

done after the ulcer has been cleansed, and after the skin and the connective tissue underneath have become soft, as gangrene would otherwise occur. Some treatment should be continued after the varicose ulcers have healed. Dr. Fejér thinks it sufficient in slight cases for the patient to assume the recumbent posture twice or three times a day for five or ten minutes each time, and to move the leg about while elevated. Persons who cannot spare the time for the above dressing may substitute an elastic stocking, which, however, must be examined every morning *in situ*, and altered according to the decreased size of the leg, as the latter frequently swells during the day while the patient is walking about.

THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES IN CARDIFF.

THERE is a sharp contest going on in Cardiff between the medical officers and the friendly societies. The latter have determined upon having, instead of one medical officer for the whole town, a club doctor in every district. This arrangement breaks the appointments up so that they are not worth having at 4*s.* a head per annum. The profession objects to this plan. Its members very properly propose a court of reference, consisting of six representatives of the societies and six of the profession, while they disclaim all interference between the committee and their medical man, whom the Court (Lord Tredegar, Ancient Order of Foresters) has called on to resign. We are glad to see the profession so united and yet so reasonable. We trust that moderate counsels will prevail, and that the views of the profession will be respected.

THE NOTIFICATION OF ERYSIPELAS.

ON the motion of Surgeon-General Bostock the Metropolitan Asylums Board have decided to ask the Local Government Board to consider, at a convenient opportunity, whether the retention of erysipelas as a notifiable disease serves any sufficiently useful purpose to justify the cost involved in the necessary notification. This is by no means the first time that this question has been raised. Certain towns, notably Leicester, included erysipelas in their special Acts relating to notification, and had it been possible to eliminate it without the expense and trouble of an amending Act some of the authorities concerned would apparently have done so after a few years' experience. The fact is that in some localities a large number of cases are reported which, as it ultimately turns out, have no significance in so far as considerations of public health are concerned. But no medical practitioner who meets with a slight "erysipelatous blush" around a trivial injury or a vaccination scar can or should defer notifying it at once. In nine cases out of ten the disease subsides rapidly with or without treatment; but in the tenth case the practitioner would find himself subject to a fine if the disease went on to a fatal termination. In tracing such a case as the last one to its cause, a knowledge of the previous nine trivial ones often becomes of the first importance, and hence sanitary authorities and such bodies as the Asylums Board should hesitate before they take any step that may tend to cut off sources of information that are at times of the utmost value.

CAUCASIAN STATIONS FOR PHTHISIS.

IN a paper published in the Transactions of the Caucasian Medical Society Dr. Seslavin gives some account of observations made during a two years' residence in Abas-Tuman, one of the best localities in the Caucasus for phthisical patients. This, like Kislovodsk and Borzhom, is a summer station, winter ones being represented by Batoum and Sukhoum, in which the weather is warm enough to allow patients to spend the best part of the day in the open air, enjoying the sunshine and breathing the pure air of the steppes. These stations can be recommended from October to the middle of May, during which period malarial fever is at its minimum. In the summer the heat is excessive, and there is a good deal of fever and diarrhœa. In the summer stations named, which are all situated in a gorge protected by mountains from northern winds, the temperature is moderate, and fever and diphtheria are practically unknown. Nine out of ten of Dr. Seslavin's patients improved very soon after coming to Abas-Tuman, the temperature falling and the night sweats diminishing, or even ceasing altogether, the patients also feeling much better and coughing less. As a rule, the body weight at first slightly diminishes, but subsequently it increases. In most of the cases the physical signs showed an improved state of the lung, the bacilli in the sputa sometimes diminishing in number very perceptibly, and in a few instances, when the patients remained at the summer and winter stations for several years, disappearing altogether.

SOME STREET DANGERS.

IT would be hopeless within the limits of our available space to discuss at length the various causes of danger which in yearly growing numbers beset the path of the street passenger, or to attempt to hedge them in with adequate precautions. Now it is the crush of wheel traffic, now some slippery fruit skin, or the greasy, miry pavement itself which compels him to walk warily. A snapped and fallen electric or telephone wire has again and again wrought most serious mischief. Flying chimney-pots and loosened slates have likewise played their part during the recent gales. The security of hoardings, too, has of late been sorely tested. These latter, and the whole series of swinging signs and sign letters, now so common in large towns, constitute a perpetual menace to the life and limb of wayfarers. Placed where they can well catch the wind, and constantly exposed to corrosion by weather, it would indeed be strange if their creaking attachments did not often prove unequal to the weight they have to support. As a matter of fact, the overthrow of many is among the most familiar incidents of a storm on land. Æsthetically the reverse of attractive, their demolition thus or otherwise could only be regretted on utilitarian grounds. It is therefore clearly to their owners' interest to ensure their stability. It is also no less clearly within the functions of County Councils and local authorities to provide all possible safeguards against these and other evident causes of street accident.

EPILEPTIC INSANITY.

THE result of a study of a hundred cases of epilepsy with mental symptoms is contributed by Dr. Fisher to the *New York Medical News*. As to hereditary tendencies, he finds that epilepsy or insanity was present in the parents or near relatives in fifteen of the cases, a percentage lower than that given by some authors. In the parents of seven cases phthisis was present. In the male cases alcoholism was regarded as a cause of the condition in nine cases, and even if some doubt may be expressed as to the causal connexion of the two conditions, alcoholism and epilepsy, their association is significant. They may possibly both be traceable to a neurotic taint. The condition was ascribed to shock in six of the females, to insolation in three men, and to injury in three men and the same number of women. In twelve of the women and nineteen of the men the fits dated from infancy, and in some of these there was a more or less definite history of a fall. As to the exciting causes of fits, it is to be noted that, among the sixty women, in sixteen cases the menstrual period was either the only time at which the attacks took place, or they were much increased in fre-

quency at this time. The mental disturbance present was of various kinds—such as mania with violence, melancholia, homicidal mania, delusion of persecution, &c. The statements of the patients also were found to be thoroughly unreliable, and thus accusations of neglect and cruelty were common, but on investigation were found to be without any foundation. The distinguishing feature in the conduct of these patients was their irritability, and this was often associated with religious or erotic ideas. They were subject to occasional attacks of mental disturbance of the character indicated, with a marked tendency to impulsive acts—sometimes associated with convulsions, sometimes not—and they gradually lapsed into a condition of dementia. As to treatment, Dr. Fisher pins his faith to the bromides, and he recommends that the patients should be kept under their influence constantly. Borax he has not found to answer, and operative interference in such cases is, he thinks, unwarrantable.

THE APPOINTMENT OF ASSISTANT-SURGEON AT ST. THOMAS'S HOSPITAL.

WE understand that the Court of Governors of St. Thomas's Hospital have taken the unusual course of declining to confirm the nomination of their election committee to the vacant office of assistant-surgeon, and have referred it back to the committee for reconsideration. We can well believe that the choice between two such very eligible candidates must have been a difficult matter. Either Mr. Battle or Mr. Ballance would prove an acquisition to the staff. It must not, however, be forgotten that Mr. Battle is senior in standing to his rival, that he held the office of Surgical Registrar for five years, and then that of Resident Assistant Surgeon for three years. These are qualifications which have hitherto been deemed essential to promotion to the surgical staff, and it would be interesting to learn what were the reasons which impelled a majority of the medical committee (for we understand that the vote was not unanimous as alleged) to deviate from the customary course. It certainly seems hard that Mr. Battle should be made an exception to the rule which has hitherto prevailed in appointments to the staff, and that the good work which he has done for the hospital should go unrewarded. A simple solution to the unfortunate difficulty would be to follow a former precedent and increase the number of assistant surgeons to four, a course which we strongly commend to the governors of the hospital.

ENTERIC FEVER AT RAWMARSH AND ROTHERHAM.

BOTH at Rawmarsh and at Rotherham enteric fever is prevalent, and according to the medical officer of health of Rawmarsh the cause is the water supplied to that place and to the borough of Rotherham. Dr. J. Picken, studying the incidence of the disease in Rawmarsh, is able to exclude a number of locally alleged causes. Seasonal influence acting on local insanitary conditions must have been equally potent in places affected with the disease and in adjacent ones where the disease is absent. Milk, as a primary cause, is excluded because of the multiplicity of sources whence affected families derive their supply, and because persons who have had no milk were amongst those earliest attacked. But when he comes to the water-supply delivered into the district by the Rotherham corporation he finds matters different. The story of the outbreak resembles an epidemic such as has often been associated with the use of a specifically polluted water. Then, again, the disease has appeared or has been absent in rural portions of the parish just as these have respectively been supplied or not with Rotherham water; and on examination of its sources the contents of the reservoir are found to be of a colour denoting that its supply is largely derived from recently washed surface lands; and the fields in the gathering ground have either recently been manured with, or were found having on their surface deposits of, filth, including heaps of nightsoil. As Dr. Picken puts it, he would be a bold man who would declare, in the face of such facts, that, because a chemical examination of the Rotherham water has not chanced to show anything that can be regarded as chemically objectionable, therefore the water has not been specifically capable of producing the disease. The case is one of importance, for, apart from the question of specificity, the populations of the districts in question should see that they are not provided as a potable water with solutions of such nastiness as has been here discovered on the gathering ground of this water-supply.

A MEDICAL MAN FINED FOR A FALSE CERTIFICATE OF DEATH.

ON Nov. 13th, at the Woolwich Police-court, before Mr. Marsham, Mr. James Watson, surgeon, appeared to an adjourned summons taken out by Mr. T. Cutter, Superintendent Registrar for the Woolwich Union District, on behalf of the Registrar-General, for knowingly and falsely making on the 7th of September a false medical certificate concerning the death of Caroline Sturgis, contrary to the statute in that case made and provided. The patient was attended by Mr. Watson's assistant, Mr. Dobbs. Mr. Watson never saw her. When the husband applied to Dobbs for a certificate, Dobbs gave him a note to Mr. Watson, and that gentleman gave the certificate required, though he had not seen the patient since 1887. Mr. Marsham said it was very important that a certificate should be signed by the medical man who attended the deceased. He imposed on Mr. Watson a penalty of £5, and 2*s.* costs.

ROBURITE AND OTHER EXPLOSIVES USED IN COAL MINES.

PROFESSOR BEDSON of Newcastle has just issued his report on the action of the fumes of roburite and tonite upon the health of miners, he having been appointed some time ago to make experiments with these substances, Dr. Hume and Dr. Drummond acting as professional advisers. At Elmore colliery experiments with roburite were made; and at South Hetton roburite, tonite, and gunpowder were used; whilst at Haswell gunpowder alone was employed. The results obtained are practically similar to those obtained by Professor Dixon, F.R.S., of Owens College, who, with Mr. Hannah and Dr. Mounsey, made experiments on behalf of the miners and colliery proprietors at Garwood collieries, near Wigan, some time ago; the conclusions arrived at were at the time published in our columns. Professor Bedson states: "Under the ordinary working of a mine I have been able to detect in the fumes two deleterious substances—viz., carbon-monoxide and sulphuretted hydrogen; and whilst carbon-monoxide is produced by each one of these materials, sulphuretted hydrogen is formed by gunpowder alone." Dr. Hume and Dr. Drummond, in their report, state that they have been led to the conclusion, from the cases they have seen, that the ailments complained of were not from the effects of the explosives used, but found their origin "in the conditions of their work—the absence of light, the confined and occasionally foul air; and no doubt the carbon-monoxide, which is the product of all the explosives fired in coal, is a factor in their production." The conclusions are set forth in a tabulated form, and are practically as follows:—1. The use of tonite and roburite is not more deleterious than that of gunpowder. 2. That, as a result of the use of roburite,

no nitro-benzine was met with. 3. That the quantity of carbon monoxide was small, and it is quickly dissipated by the air current. 4. An interval of at least five minutes should be allowed after firing the shot before re-entering the place. 5. As burning of the fuse gives rise to part of the gases formed, the cartridges should be fired by electricity. It will be remembered that the cases of illness seen by Mr. Hannah and Dr. Mounsey were caused, not by the results of the explosions, but by the careless handling of the roburite.

INFLUENZA.

A NOTEWORTHY difference between the present outbreak of influenza and those experienced last spring and the original epidemic of the winter of 1889–90 is the comparative slowness of its diffusion over the country. It is mainly confined to two widely separated parts of the kingdom—viz., Cornwall and the eastern counties of Scotland. The reports from the latter show that some towns and villages in Forfarshire, Perthshire, Fifeshire, and Kincardineshire have suffered severely. In Dundee the epidemic is on the decline, as also at Arbroath, where it has been particularly severe. At Lochee it is reckoned that more than 1000 cases have occurred during the past month, and twelve deaths are attributed to it. It has been very prevalent at Edinburgh, but it seems only to have appeared at Aberdeen quite recently. It is remarkable that children are being attacked almost as much as adults. Abroad, it is reported to be very prevalent in St. Petersburg and Berlin, whilst at Hamburg last week it had reached "alarming proportions," and the weekly mortality of the city and its suburbs exceeded the average by 280. In France it is especially prevalent at Bordeaux, where many deaths among the aged have occurred. It has also, as will be seen from our correspondent's letter, appeared in Paris.

DIFFUSE IDIOPATHIC ATROPHY OF THE SKIN.

DR. KRISTIAN GROEN publishes in the *Norsk Magazine* an article on diffuse idiopathic atrophy of the skin, one of the rarest of cutaneous affections, five cases of the kind having so far only been published. The author gives an interesting case, which occurred in a sailor forty-seven years old. Both lower extremities were affected, the atrophy beginning in front five centimetres below Poupart's ligament, and at the back ten centimetres below the crest of the ilium, and extending down to the toes and soles respectively. The skin was thin, transparent, reddish or cyanotic, and the venous circulation was visible to a remarkable extent. Nothing abnormal was to be observed in the urine, the sudorific glands, or in the sensibility of the skin; but slight muscular atrophy existed. The affection was discovered when the patient applied to the hospital for treatment of atonic ulceration of the leg, a usual sequel of the abnormal condition of the skin. There was no syphilitic history.

DIPHTHERIA IN MILAN.

THE Nemesis of bad water-supply has of late been conspicuous in the Lombard capital. We have drawn attention to the severity of the typhoid fever visitation due to that cause. Now we have to refer to another hardly less severe—that of diphtheria. It is in the schools that this latter scourge has been most prevalent, and, as usual, we hear of its ravages long after its first appearance. It must have been in the spring that it began to assume an epidemic form, and it was at midsummer that it numbered most victims. In April the cases were 67; in May, 65; in June, 76. July witnessed a decline in the frequency of its attacks. There were 51 in that month, 52 in August, and 33 in September, when the schools were closed for the holidays; but in October the cases rose again to 45. During the present month the diminution in number has been maintained, and also, it is said, the gravity of the symptoms has perceptibly declined; but there is still diphtheria enough in the city to justify the most active vigilance on the part of the Ufficio Sanitario, and the utmost anxiety in all interested in school management—parents and masters alike. A correspondent tells us of an outbreak of the disease in the Via Palermo, where a much-frequented *scuola communale* is situated. Six cases are already reported in that quarter. Milan has spent much on public buildings, some of which are among the finest in Europe. We have lately seen proposals to replace the façade of her world-famous cathedral by a new one. But as long as her drinking-water continues the prolific source of disease, we should think that improved sanitary works, including an aqueduct to put a sufficient supply of *acqua potabile* within the reach of all her citizens, ought to take precedence of all others.

THE REGISTRAR-GENERAL AND "COVERING."

IT is gratifying to find that in two or three recent cases of "covering" the Registrar-General is the prosecutor. This is as it should be. The offence in the first instance is against the Registrar-General and his returns. Certificates of death are given by practitioners in cases which they have never seen, and which have been attended throughout by their unqualified assistants. Those who commit this offence after such due notice has been given are without excuse. Nor will it suffice as a punishment to fine them £5 or £10, as in two recent cases. Such behaviour is against the honour of the profession and the interests of the public, and should be dealt with by the Medical Council. But the point of our present remark is that such evils will be sooner cured if other parties affected by them would do their duty. The Registrar-General is now coöperating with the Medical Council. When will the medical authorities do their duty, and realise that the diploma-granting function involves responsibilities and duties as well as the reception of examination fees?

TUMOUR OF THE BRAIN.

AT a recent meeting of the *Société Anatomique*, M. Martin Durr related the history of a man who had gone the round of various hospitals, suffering from successive attacks of paralysis, and who finally became affected with right hemiplegia, with head retraction, and almost complete blindness. At the last he remained 185 days in a condition of almost complete coma, treatment being tried without success. At the necropsy the cortex was found to be healthy, but a tumour was present on the left side, affecting chiefly the optic thalamus and the posterior part of the centrum ovale. The surprising thing about the case is the length of time during which the patient remained in an unconscious condition.

SYRINGOMYELIA AND MORVAN'S DISEASE.

IT is about a year ago since Messrs. Achard and Joffroy published a case, a careful consideration of which, in all its aspects, led them to conclude that Morvan's disease is really a variety of syringomyelia. They have now in another case, recently published in the *Arch. de Med. Exp.*, brought forward further evidence to support their contention. The patient was a woman of forty-eight, who many years before she came under observation had suffered from painful inflammation in several fingers of the right hand—inflammation which had caused necrosis of part of the fingers or had rendered their amputation necessary. When she came under observation she had, chiefly on the right side of the body, disturbances of sensibility, in which there was blunting not only to thermal and painful impressions, but also to

ordinary touches; there was also contraction of the visual fields, more marked on the left side; and the patient was subject to severe hysterical attacks. There was some muscular atrophy and distinct lateral curvature. The patient died suddenly, and at the necropsy it was found that a cavity existed in the spinal cord which ran from the lower part of the medulla to the lumbar region, without, however, invading the latter. The posterior horns and columns were also slightly invaded by this cavity. The cavity was either an enlargement of the central canal, or it had included this, for there was a distinct epithelium lining visible, chiefly in the front part of the cavity. Slight alterations, both parenchymatous and interstitial, were also found in the peripheral nerves, and the muscles showed the usual histological appearances of atrophy. The case is an important one, being, as it were, a connecting link between Morvan's disease and typical syringomyelia, for it resembles the type of each without being identical with either, and it lends strong probability to the hypothesis that Morvan's disease is really a condition depending upon the pathological condition known as syringomyelia. The significance of the changes in the peripheral nerves is not quite clear, but in all probability it is secondary to the condition of the spinal cord.

FOREIGN UNIVERSITY INTELLIGENCE.

Giessen.—Dr. Adolf Hansen of Darmstadt has been appointed to succeed Professor H. Hofmann in the chair of Botany. He has been engaged in researches on the colouring matter of chlorophyl and on Quebracho bark.

Kazan.—Dr. N. Mislavski has been promoted to the chair of Physiology.

Kieff.—Extraordinary Professor Morosoff has been promoted to the Professorship of Operative Surgery.

Madrid.—Señor Don Dr. Pedro L. Preláez has been appointed to an Assistant Professorship of Anatomy and Embyrology.

Naples.—Dr. Giaxa has been appointed to the chair of Hygiene.

Pennsylvania.—Dr. Miller, of the Berlin Dental Institution, has been offered the Professorship of Histology.

Vienna.—Dr. Lihotzky has been recognised as *privat-docent* in Midwifery and Gynæcology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Schweig of Carlsruhe, at the age of eighty.—Dr. E. Reichardt, Professor of Pharmacy in the University of Jena.—Dr. Christopher Johnson, Professor of Surgery in the University of Maryland, Baltimore.

ACCORDING to our contemporary, the *Army and Navy Gazette*, there is a proposal to establish an Army Medical Institution on the lines of the Royal Artillery Institution and the Royal Engineer Institution, in order to carry out the same line of work for the medical service of the army that is now performed by the two other institutions for other scientific branches of the service. It is also proposed to publish a journal in connexion with the Army Medical Institution similar to that published by the institutions of the Royal Artillery and Royal Engineers.

THE Bradshaw Lecture will be delivered at the Royal College of Surgeons of England by J. W. Hulke, Esq., F.R.S., on Thursday, Dec. 3rd next, at 4 o'clock P.M. The lecture will be on some Mechanical Injuries of the Vertebral Column.

THE REV. DR. FORREST, Dean of Worcester, whose name will be known to our readers as Vicar of St. Jude's, South Kensington, the contributions of the congregations of which church to the Hospital Sunday Fund have for many years headed the list, was on Wednesday last, at the Town Hall, Kensington, presented by his late parishioners with an address, a gold watch, and a cheque for £2200, as a token of affection and esteem. The presentation was made by Mr. Ritchie, President of the Local Government Board, as vicar's churchwarden.

THE *Madras Times* states: "A micro-biological institute has been established at Saigon, in Cochin-China, the objects with which it has been started being: (1) Animal vaccination; (2) vaccination against hydrophobia; (3) the manufacture of Pasteur's vaccine for anthrax in cattle; and (4) the analysis of water, of organic liquids, and of alimentary or manufactured substances liable to alteration by microbes, or to fermentation, such as food preserves, beer, &c."

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

TUESDAY, NOV. 24TH.

THE winter session of the Council of Medical Education and Registration commenced in the Council rooms in Oxford-street, on Tuesday the President, Sir Richard Quain, Bart., in the chair. There was a full attendance of members. Dr. Leech of Manchester, who has been appointed in the place of Mr. Mitchell Banks to represent the Victoria University at the Council Board, was introduced to the President by Sir Dyce Duckworth.

The President's Address.

In the course of his address the PRESIDENT gave a *résumé* of the business which was about to be brought before the Council. "We miss from amongst us Mr. Mitchell Banks, whose absence will be regretted by his colleagues. He took a deep interest in all the proceedings of the Council, and was always ready to take part in its duties, addressing himself to the business in hand with ability, kindness, and consideration for the opinions of his fellows. The institution which he represented, the Victoria University, has thought it desirable that each of its constituent colleges should participate in the representation, and has sent us a gentleman of great distinction, Dr. Leech of Owens College, who, I am sure, will so fill the place of our late colleague that we shall have the less reason to regret his absence. The Council will remember that towards the close of the last meeting a resolution having reference to the proposed Albert University was passed by the English Branch Council and adopted by the General Council, to the following effect—viz.: 'That while the English Branch Council viewed with the greatest sympathy any well-considered efforts to create facilities for London medical students to obtain degrees in medicine, they regarded with grave concern, in the interests alike of the public and of medical education, any proposal to found a degree-conferring faculty independent of the existing university and the medical licensing authorities, which already number four in London.' This resolution was communicated to the Lord President of the Council, and his lordship's reply will be found in the programme. Some copies of the Charter will be laid on the table for the use of members of the Council, from which it will be seen that any medical degree conferred will be in the form of an additional title, and not a qualification to practise. A deputation waited upon the Home Secretary, in accordance with the resolution of the Council passed at its last meeting, having reference to the fact that the penalties recoverable for infringements of the Medical Acts in the London police-courts were paid over to the Receiver of the Metropolitan Police, no portion being received by the Council, as is the case in the provinces, from which it results that prosecutions in London have been in abeyance,

and London itself has thus become a sanctuary for evil-doers. The proceedings of the deputation will be found in the report, which is set forth in the programme; and this report will show that the Home Secretary declared himself quite unable to obtain a change in the law, but suggested that magistrates might allow a portion of the penalties towards the expenses of the prosecution, or that the Public Prosecutor might be induced to undertake the prosecution himself. A period having been fixed by the Council, after which no further applications would be received from those who claimed to be registered as dentists under Section 37 of the Dentists Act, on the ground of having been dental apprentices, a considerable number of such applications were received, and each one was carefully considered and investigated by the Registrar and myself, and none were admitted to the Dentists' Register without evidence sufficient to justify their registration. Communications have been received from the Lord President of the Council having reference to the conditions under which foreign medical practitioners are allowed to practise in France, Germany, and Switzerland. It certainly does seem a very great hardship that, when English medical men send patients to health resorts in France and in Switzerland, if not elsewhere, these patients should not be permitted to have the advantage of treatment by medical practitioners of their own nationality without their being required to go through certain ordeals. There is an evidence in these regulations of a selfish exclusiveness, which can only be met by seeking for health resorts in situations where such invidious and exclusive practices do not exist. The Royal College of Physicians of London has appointed a committee to consider this subject, with a view to make representations to the Privy Council and the Foreign Office. Our Council may possibly think it well, as the admission of foreign practitioners in this country to the privileges conferred by registration is in its hands, to itself appoint a committee to consider and report on this subject to the Council. The Council should be informed that a case of far-reaching importance will come before the Court of Queen's Bench almost certainly during the present session of the Council. After the fullest consideration of all the circumstances by Mr. Muir Mackenzie, Mr. Farrer, and myself, it was decided that it was absolutely necessary that the Council should be represented when the case again came before the court. In the meantime the bench of magistrates, who, in the first place, had refused to take any part in the proceedings, resolved to appear in support of the conviction, and they have retained the services of Mr. Muir Mackenzie as their counsel. The case will therefore be argued on behalf of the magistrates by that gentleman, who will at the same time represent the Medical Council. The case is one which will have a very important influence as regards the assumption of titles which are either fictitious or not registrable. With reference to this question of medical education in the future, the Council will watch with much attention and interest the regulations which will be framed by the various licensing bodies as to the mode in which the five years' curriculum is to be spent. No doubt these licensing bodies will claim a certain amount of freedom of action as to the way they are to conform with the Council's recommendations. It cannot be too clearly remembered that the Council has to deal with results, and to see that these regulations are calculated to secure 'a standard of proficiency such as to sufficiently guarantee the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery.' This is the primary duty of the Council. The lengthened period of study will offer excellent opportunities to students for *learning* their profession thoroughly; but there is one other important element to consider—that of *teaching*. The art of teaching has now become itself a subject of study. We see that there is a professor in the University of Edinburgh of the theory, history, and art of education, and in the University of London it is proposed to establish degrees in this art. It is nearly half a century since I myself heard Lord Brougham say, when speaking of the importance of teaching, that it was a remarkable thing that there was 'no one taught to teach this gigantic subject.' Let us hope that the students of the future will be better taught than those of the past; and that their brains will not be crammed with the minutiæ attaching to a multiplicity of subjects, but that they will be taught how to observe, how to reason, and how to apply their knowledge. Various other matters of more or less importance, as set forth in the programme, will come before the Council. They are essentially of an administrative character. It cannot be too thoroughly understood that the Council has no legislative authority whatever; that it is in no sense a 'Parliament,' and that it cannot enter on a sphere of action quite beyond the powers of the Council, which are strictly limited by Acts of Parliament. These duties are that the names of completely qualified persons alone are placed on the Register. Secondly, to remove from the Register the names of those whose conduct is 'disgraceful in a professional respect.' Thirdly, to prepare a national Pharmacopœia. In conclusion, let me say that I see around this table a body of gentlemen than whom, individually and collectively, it would be difficult to find persons more competent to discharge the important duties assigned to the General Council."

Sir JOHN SIMON moved and Mr. WHEELHOUSE seconded a vote of thanks to the Chairman for his address, which was accorded.

Communications and Reports.

Several communications and reports were received and entered on the minutes, including one from the Lord President of the Privy Council, dated June 9th, informing the General Council that the Lords were about to hear counsel for and against the petition of the London Colleges for the grant of a Charter to establish a Teaching University—viz., King's and University Colleges; and a report in regard to an interview with the Home Secretary by the deputation on the question of fines imposed within the metropolitan area, under the Metropolitan Police Acts. The result of the meeting with the Home Secretary has already been reported in THE LANCET. The Home Secretary expressed himself well acquainted with the facts disclosed by the deputation, but stated that the reason for the difference in the assignment of the fines in the metropolis and the provinces was that in London the police-courts were maintained by the Treasury at very great expense, and that consequently there was very great reluctance to diminish in any way the income derived from fines; whereas in the country the courts were supported by local rates. He added that it was quite impracticable to alter this arrangement. The Home Secretary, as was pointed out by Dr. Glover in supplementing the report, expressed himself as willing to receive any information as to the cost of the first prosecutions, and these had been forwarded to him within the last two or three weeks. Dr. Glover hoped that the question would be by further means kept before the mind of the Home Secretary. Communications were also submitted from the Lord President of the Privy Council in regard to the admission of foreign medical practitioners to practice in France, Germany, and Switzerland.

Qualifications for Practice in Foreign Countries.

France.—The memoranda forwarded to the Council by the President included the regulations for admission to practice in France.

Foreign medical men desiring to practise in France must send in a written application to the Minister of Public Instruction, which should be accompanied by their diplomas or certified copies of the same. On examination of these documents, and dependent on the value which may be attached to them, the Minister of Public Instruction can grant facilities for obtaining the French degrees of Sanitary Officer or Doctor of Medicine. The degree of Sanitary Officer, which only confers the right to practise in one department, is obtainable on passing three examinations:—The first, in practical dissection (elementary), anatomy, and physiology; the second in practical surgery (elementary), internal and external pathology, therapeutics, and materia medica; and the third, in internal and external clinics and midwifery. The cost of obtaining a diploma is 1100 francs. For the degree of Doctor of Medicine, carrying with it the privilege of practising throughout French territory, five examinations must be passed, including all the subjects of medical education.

Germany.—The following is a *précis* of the law in Germany respecting medical examinations:—

For practising the healing art within the German Empire no special official permission is required, but anyone wishing to practise as a doctor, or under any similar title, or wishing to be recognised or entrusted with official duties as such by the State or the authorities of a commune, must have received a certificate according to Sect. 29 of the "Reichs Gewerbeordnung."

Persons who have not passed the state examinations and received the certificate in accordance with this section will only be recognised as doctors by the German authorities in Germany if they are well-known men of science, and have received an official appointment from a State or community. The decision as to whether the exception is admissible rests with the Chancellor of the Empire (Sec. 27) and the authorities of the States mentioned in Sec. 1 of the Regulations for Medical Examinations of June 2nd, 1883.

Switzerland.—In this country the following are the

formalities necessary to enable British medical men to practise in Switzerland.

British medical men who are in possession of a medical diploma authorising them to practise in their own country, and who are desirous of pursuing their calling in Switzerland, must first obtain the Federal diploma by passing the regular medical examination. Application for permission to present oneself for this examination has to be made to the Federal Medical Board. With the exception of the canton of Tessin, where permission is occasionally granted to British medical men to practise among their own countrymen, the cantonal authorities decline, as a rule, to allow any doctor to practise who has not qualified himself to do so by obtaining the Federal diploma.

Committee Work.

Dr. STRUTHERS moved that part of the time of Tuesday's meeting be given up for meetings of the committees. This was seconded by Mr. MACNAMARA.

Sir WALTER FOSTER protested that this work ought not to be done in the Council's time, but at intervals in the session of the Council. The reports which it was now proposed to consider ought to have been prepared and furnished for the consideration of the Council some weeks ago. He hoped this would not be looked upon as a precedent. He had a great distrust of the principles on which such a motion was based.

The motion was agreed to.

The Case of Mr. Samuel Kennedy.

A letter from the Secretary of the Royal College of Surgeons of Edinburgh was read in regard to Mr. Samuel Kennedy, registered as Lic. 1877, Fell. 1884, R Coll. Surg. Edin.; Lic. R. Coll. Phys. Edin., 1877, stating that his name had been erased from the list of Fellows of that College.

Referring to this case, Dr. GLOVER asked for an explanation of what he designated a most remarkable circumstance, that the College had only removed this gentleman from the list of Fellows, and not from that of the Licentiates of the College. The action in its present form was altogether unintelligible to him.

Dr. HERON WATSON said he was glad the explanation had been asked, because the action appeared an extraordinary one on the face of it. He explained that for a long period of years the Fellowship had been held by no one without a distinctly signed agreement, by which, if he did not conform to the laws of the College, he would have his name taken off the roll. As regards the Licentiateship, this law had also been added, but at a more recent date, and as the date at which this by-law was passed was after the date upon which he received his Licentiateship, the College did not take it from him. (Dr. Heron Watson afterwards made a statement of this case to the Council *in camera*, and on the reporters being readmitted they were informed that the registrar had been directed to remove the qualification of Fellow from the Medical Register.)

The Case of Mr. Leeson: Restoration to the Register.

A petition had been sent to the Council by Mr. J. F. Leeson, asking for restoration to the Register, in regard to which the Executive Committee had resolved to recommend the Council to restore his name to the Medical Register. A pathetic letter had been received from Mr. Leeson.

On the motion of Mr. WHEELHOUSE it was unanimously agreed to restore his name to the Register.

The Case of Mr John Keys.

A similar application from Mr. John Keys, whose name was removed from the Register at the last meeting of the Council, was considered *in camera*, and ultimately the Council resolved to adopt the recommendation of the Executive Committee not to restore his name on this occasion to the Medical Register.

Resolution of the Council of the British Medical Association.

The following letter enclosing the subjoined resolution had been forwarded by the General Secretary of the British Medical Association:—

British Medical Association, General Secretary's Office,
429, Strand, London, W.C., Nov. 10th, 1891.

DEAR SIR,—I am directed to forward you copy of Resolution passed at the last meeting of the Council of the British Medical Association, held on Wednesday, Oct. 21st last.

I am, Sir, yours faithfully,
FRANCIS FOWKE, General Secretary.

W. J. C. Miller, Esq., Registrar of the
General Medical Council.

RESOLUTION.

Resolved:—"That a representation be made to the General Medical Council to earnestly request the Privy Council to exercise the power vested in them by Section XIX. of the Medical Act of 1886, and order that Section VIII., Sub-section X., paragraph C, of that Act be put into operation, so that the registered medical practitioners in the three divisions of the United Kingdom be given the power of returning an additional direct representative for each of the three divisions; and that this prayer be granted forthwith as the next quinquennial election of direct representatives takes place in November, 1891."

Sir JOHN SIMON remarked that he hoped he should not be thought to be speaking in disrespect of the British Medical Association, but here was a letter that really ought not to have been written by any reasonable body to another public body for which it had ordinary respect—a letter dated Nov. 10th asking this body "forthwith" to move the Privy Council. Because the direct representatives are to be elected in November, the Medical Council on Nov. 24th is asked, by a letter dated Nov. 10th, to take immediate action to "earnestly request" the Privy Council on Nov. 24th, having already taken our statutory action, to "forthwith" go on to some—he did not know what—action.

Sir WALTER FOSTER said the resolution directing the Council to take this action was passed in July. It was unworthy of the dignity of the General Medical Council to take such petty exceptions to this resolution, which referred to a matter which was very dear to the medical profession. He was probably more intimately acquainted with the wants of the medical profession than any gentleman in the room with the exception of the other direct representatives, and he had within the last few weeks received some thousands of letters which would bear out the statement he had just made; therefore he had a right to speak, and to say that he was in close contact with the profession, and in closer contact probably than any member of the Council; and this being the case he must protest against any technical exception being raised against the resolution being entered upon the minutes of the Council.

Dr. GLOVER hoped the Council would enter the letter upon their minutes.

Dr. STRUTHERS thought the communication should be allowed to go on the minutes, so that others might judge. He entirely agreed with what Sir John Simon had said on the subject.

It was ultimately resolved that the communication be received and entered upon the minutes.

The Council then adjourned to allow the Committees to nsider their reports.

WEDNESDAY, NOV. 25TH.

Case of Caleb Charles Whitefoord.

On resuming, the Council proceeded to consider the case of Caleb Charles Whitefoord, who was recently convicted of a felony at the Old Bailey and sentenced to five years' penal servitude. The registrar was directed to remove his name from the Medical Register.

Case of Gavin Steel Scott.

The Council next proceeded to consider the case of Gavin Steel Scott, who had been summoned to appear before the Council on Wednesday to answer to the charge "that he, being a registered medical practitioner, caused and enabled a medical practice in Birmingham to be improperly carried on, and medical and death certificates given in his name, and for his benefit, by means of the employment of unqualified persons, in which medical practice so carried on there was gross misconduct and culpable neglect of patients." Improper conduct was specially charged against him in reference to the deaths of two persons on whom inquests had been held, during which the coroner had directed attention to the conduct of Mr. Gavin Steel Scott. Mr. Farrer, the solicitor of the Council, having reviewed the evidence in the case, the Council deliberated in private. Ultimately the Council decided that the said Gavin Steel Scott had committed the offence charged against him, and that the offence was, in the opinion of the Council, infamous conduct in a professional respect, and the registrar was directed to erase his name from the Medical Register.

Case of Richard Davies Barree Gunn.

The next matter before the Council was the consideration of the case of Richard Davies Barree Gunn (registered as L.R.C.P. Edin., 1886; L.F.P.S. Glas., 1886), who was charged: "That he, being a registered medical practitioner, caused and enabled a medical practice in Manchester to be improperly carried on in his name, and for his benefit, by means of the employment of an unqualified assistant, at 79, Gibson-street, Man-

chester, in which medical practice so carried on there was gross misconduct and culpable neglect of patients. Improper conduct was specially charged against him in reference to the death of a person on whom a coroner's inquest was held. At the conclusion of the inquest the jury returned a verdict that the person "had died from exhaustion from mesenteric disease, and the said jurors recommend that the Medical Council be communicated with, and that some steps should be taken to prevent unqualified practitioners from acting independently under the cloak of duly qualified surgeons." The deputy-coroner, in his letter to the Council, remarks that "as this employment of unqualified practitioners by registered surgeons is largely on the increase, and is illegal and a fraud on the poor, I think, with the jury, that it should be stopped; and I shall be pleased, if you see your way, to prosecute in such cases in order to discourage others from acting in the same manner." Mr. Gunn practically admitted the offence in a letter which he submitted to the General Medical Council, and asked for the leniency of the Council.

The Council having deliberated over the case *in camera*, the PRESIDENT, on the reporters being admitted, said: "Mr. Gunn, it is my duty to inform you that, in the opinion of the Council, you have committed the offence charged against you, and the result of that is that in the opinion of the Council you have been convicted of infamous conduct in a professional respect, and that their conclusion is that that the Registrar has been directed to erase your name from the Medical Register."

Mr. GUNN: What shall I do? Cannot the Council look over the offence for once?

The PRESIDENT: I wish it could have been otherwise, but the Council must do justice. I am very sorry for you. You must withdraw. The Council has come to its decision.

A communication from the Registrar of the Scottish Branch Council, in regard to the registration of a diploma in Public Health, University of Glasgow, November, 1890, by a student, whose case was reported on by the Executive Committee to the General Council (Minutes, vol. xxvii., p. 118), was received and entered in the Minutes. The writer was of opinion that, before the diploma could be registered, authority for the registration must be obtained from the Medical Council.

The Cumulative Vote Question.

The following opinion by Mr. Muir Mackenzie, the legal adviser of the Council, in answer to questions submitted to him by direction of the returning officer, was read.

"(1) In my opinion a voter cannot record more than one vote for one candidate. This follows, I think, from the terms of the enactment under which the right of voting is given. The enactment (s. 8, c. 4) of the Act of 1886 provides that each practitioner may vote for as many candidates as there are representatives to be elected; the enactment does not state that the practitioner is entitled to a number of votes equal to the number of representatives. In the Education Act (34 and 35 Vict., c. 75, s. 29) Parliament expressly gives each elector a number of votes, and permits in express terms the elector to give all his votes to one candidate or to distribute his votes.

"(2) A voting-paper, by which a voter purports to give all or more than one vote to one candidate, will, in my opinion, be invalid.

"(3) I do not think that the addition to the voting-paper (struck out in the proof) ought to be made. The voting paper should be issued in the form prescribed by the Privy Council, without any addition. The directions are, in my opinion, sufficiently plain as they stand, and no reasonable person ought to be misled into thinking that he could give more than one vote to one candidate.

"M. MUIR MACKENZIE.

"3, Temple-gardens, Nov. 24th, 1891."

Increase of Direct Representatives.

Sir WALTER FOSTER rose to move, "That, in the opinion of the Council, the time has come when it would be expedient to confer upon the registered medical practitioners resident in the United Kingdom the power of returning an increased number of direct representatives to the General Medical Council, as provided for in Section 10, Subsection 1, paragraph *c*, of the Medical Act, 1886." He said that he felt he would be failing in the duty which he owed to the profession if he did not bring this question before the Council. He did not propose to discuss the principle of direct representation, by which the Council, he believed, received increased strength from the confidence it obtained from the general body of the profession through their direct representatives. He knew that some of the Council did not regard the principle of representation in the same light; but the principle had been admitted both in the House of Lords and in the House of Commons, and it was now part of the constitution of the Council, and therefore the principle required no comments or any advocacy, but it was a fact with which they had to deal. There was a strong feeling among the great body of the profession that they ought to have a larger voting power than they had at present. On looking round the table, one found five direct representatives placed here and there among twenty-five gentlemen who represented the corporations, and the profession very justly felt that their power on the Council was not as great as it ought to be, especially as the profession had to find the money by which the Council transacted its business, and by which it was paid. They only claimed as the paymasters of the Council a larger voting power in its judgments. It had taken the profession some twenty-five years to win the principle, and having had direct representation for the last five years, they were so satisfied with it that they wanted more of it. He did not think the desire was as great in Scotland and Ireland as it was in England. Speaking on behalf of the practitioners in England, he knew that the desire for more direct representation was very strong. At the annual meeting of the British Medical Association for many years past the action of this Council had been discussed from time to time, and direct representation had been one of the themes on which there had been many debates, and had passed for the past two years resolutions which demanded an increase in the number of direct representatives. The Council of the Association had also brought it under the notice of the General Medical Council. The demand was made, indeed, from all quarters in England, and his colleagues, Dr. Glover and Mr. Wheelhouse, and himself had during the last few weeks, while engaged in a contested election, received some thousands of letters from all parts of England bearing out his statement, some enclosing resolutions on the same subject passed at meetings of medical men. In one instance a gentleman had suggested, what was not an extravagant demand, that the Welsh practitioners should have a representative for themselves. Accordingly he felt it would be his duty as long as he sat on the Council to endeavour to bring about the satisfaction of what he considered the just desires of the medical practitioners of the United Kingdom. Was the demand one based upon facts which made it a just demand? In 1886, when the Medical Act was passed, two members were thought to be sufficient for England, one for Scotland, and one for Ireland. He pointed out in the House of Commons at the time that this arrangement would be disproportionate as regards the medical practitioners resident in England, and a third seat was won. As the disproportion became greater the discontent became more urgent. According to the last figures in the Medical Directory, Ireland had one direct representative for every 2489 practitioners, Scotland one for every 2739, and England one for every 6340, nearly three times the number of any portion of the United Kingdom. This disproportion was not likely to satisfy the English practitioners. It might be said that the other gentlemen sitting on the Council represented the profession as well as the direct representatives. That was partly true; but they only did so through the limits of a section of it. But even if these were taken into consideration, putting aside the Crown members, Ireland would be represented by one member for every 415, Scotland by one for 342, and England, with its eleven voices, by one in 1729. This created a sensation in the mind of the English practitioner that he was not placed in a position of equal potency with his brethren in other portions of the Kingdom. He showed that the Act of Parliament, by reference to Section 9 of the Medical Act of 1886, contemplates such interference in the constitution of the body, both with regard to the representatives of corporations and of the medical profession. The House of Commons had decided that the Victoria University was worthy to be included in the list of bodies represented on the board, and in the same way, if it was considered "expedient" to increase the representation of the corporate bodies it was equally worthy of con-

sideration that an increase should be made in the direct representation. The Act of Parliament thought it was equally worthy to be considered on the ground of expediency, and used the same word in regard to direct representatives. The increase in the power and influence of the medical profession in England gave the profession a further claim to consideration in the deliberations of the Council. Parliament had given the Council power to modify its constitution from time to time as was expedient. It was always expedient to act in a liberal sense in reference to demands such as this, and he urged the Council to meet it in a generous and liberal spirit, since there was no doubt of its expediency. It might be urged that the Council was already as large as they could afford to pay. He was not sure that the Council was too large, and if it was a question of expense, the amount of money taken out of the pockets of the medical profession standing to the credit of the English branch Council might be utilised to pay the new representatives. But the cost of another representative would not be serious, and the question of expense ought not to be raised as a barrier in connexion with the demand of the profession which had to defray the expense. This was a matter which was growing in strength, and although he did not ask the Council to come to a deliberate conclusion that another member should be added, he thought it was time for them to take the matter into consideration, and not to shelve the question by a directly hostile vote, as was done last year, without debating the subject on its merits. He would be glad if the Council would pass this resolution, or some similar resolution, because the matter could not be stopped by a hostile vote or by many hostile votes. Those gentlemen who lived in London, whose practice was among the rich, and who never came in contact with the poorer members of the profession outside the metropolis, could have no idea of the intensity of the feeling which existed in the provinces on this subject. He hoped they would meet the proposition in a reasonable spirit, and if they did so, then the Council would have the honour and credit of meeting the demand made on the part of the profession within its own walls. Otherwise the profession was bound to agitate for it in some other direction than through the Council, which should be the means of satisfying the just demands of the profession.

Mr. WHEELHOUSE seconded the proposition. He bore testimony to the accuracy of Sir Walter Foster's statements, and said that he had not in the slightest degree over-estimated the desire which existed in the profession for increased direct representation. He earnestly hoped the Council would give this matter their consideration.

On the motion of Sir WILLIAM TURNER, the discussion of this motion was adjourned.

THURSDAY, NOV. 26TH.

The Medical Council met again to-day, under the presidency of Sir Richard Quain, Bart.

The adjourned discussion on Sir Walter Foster's proposal to increase the number of direct representatives on the Medical Council was resumed by

Sir WILLIAM TURNER, who said that the general body of the medical profession was peculiarly fortunate in having Sir Walter Foster as its advocate on this occasion. Sir Walter Foster had the gift of saying what he wanted to say concisely and clearly. He always listened to him with the greatest pleasure, but on hearing Sir Walter Foster on the present occasion the thought crossed his mind that the Council was not the only public body in which Sir W. Foster played a distinguished part. The motion before the Council must be discussed seriously. When it was brought forward earlier in the year, it was met by the previous question. He should be sorry if it were so met on this occasion. He thought it was right that they should seriously discuss the proposal which had been put before them. In the first place, he would ask on what it was Sir W. Foster based his motion. He said it was on the voice of the profession; and a pathetic appeal was made to them about the hardships of the poorer members of the profession. He (Sir W. Turner) hoped he should always sympathise with the struggles of those who were beginning professional life; but he entirely failed to see what the hardships and struggles of the poorer members of the profession had to do with this question. They were not a debating society; it was not their province to take up questions, real or imaginary, which interested their professional brethren generally; neither were they a Council of Trades Unionists. It was not their business to attempt to impose restrictions, such as he found some of the constituents of Sir Walter Foster were desirous of imposing, on the entrance to the medical profession. He found on a reference to the public prints that proposals had been made to Sir Walter Foster and his friends that the age of admission to the medical profession should be raised from what it was at present to twenty-five years or more. What was the object of all this? In his opinion it was a restrictive measure to check entrances into the medical profession. Now, that was not the function of the Council. Their function was strictly defined by Act of Parliament; it was to satisfy themselves that those who entered their profession were possessed of the requisite knowledge and skill. That was not a question of age. If a man had reached his legal manhood he contended that he had a right to enter the profession if he could submit himself to go through the various tests which the Council and the examining bodies in this country had imposed. In view of this restriction of their functions to questions mainly of education, but also important questions of registration, the constitution of the Council had been laid down by Act of Parliament, and it provided in the first instance for the representation on the Council of the great educational and examining bodies in medicine in the country. He failed to see how the Council could possibly discharge its duties if it were not that the great educational and examining bodies of the country were represented upon it. He did not think there was an excessive representation of these bodies. He thought they had reached a stage in their constitution in which, so far as regarded this kind of representation, they were in a better position than they were in under the old Act of 1858. But in addition to the representation of the educational and examining bodies, the public interests were also represented through the Crown members. The Crown members were returned, he had often heard it argued, to represent the general interests of the public and not the interests of the profession or the interests of any one of the educational bodies. And now under the Act of 1886 the profession was represented in what he conceived to be an ample and sufficient proportion on their Board. When they had three representatives from England, one from Scotland, and one from Ireland, he did not think anyone who had had the honour of a seat on the Board for the last five years could say that the profession had been inadequately represented. The direct representatives were all men who from their education and position were eminently entitled to speak upon all questions affecting the profession as a whole. He therefore failed altogether to see why the direct representation should be increased. But he found, as Sir W. Foster went on in his argument, that to some extent he departed from the general proposition laid down in his motion, and he endeavoured to limit himself to asking for one additional member for England. Scotland and Ireland were entirely put on one side, and he argued his motion on the ground that the proportional representation of England through its direct members was less than the representation either of Scotland or of Ireland. He should be very curious to know whether in that other assembly in which Sir W. Foster sat, when the time came for considering the question of proportional representation in England, Scotland, and Ireland, he would take up the same attitude and argue from the same point of view in the House of Commons as he had done there. In connexion with the question of proportional representation, he would ask the Council to look at the question not merely from the point of view of the direct representation, but from the point of view of the entire constitution of the Council. He found that England was represented by fourteen members—nearly one-half of the Council,—and of these fourteen members, eight represented the educational and examining bodies, three represented the Crown, while there were three direct representatives. Scotland was represented by nine members—seven from the educational and examining bodies, one from the Crown, and one direct representative. Ireland had seven members—five representing the educational and examining bodies, one from the Crown, and one direct representative. He believed that in adjusting this proportion of members, the authorities by whom the Act was passed had in view that the three divisions of the kingdom should be so situated as regarded the proportion of their repre-

sentation, that no one division should have a dominating influence over the other two. And he should be very sorry indeed to see this arrangement disturbed by the alteration which Sir W. Foster proposed. He failed altogether to see that Sir W. Foster had made out anything like a strong or satisfactory claim for what he asked. He did not wish to move any direct amendment to the motion. He thought the matter would perhaps be best adjusted by voting either for or against the motion.

SIR DYCE DUCKWORTH had listened to Sir Walter Foster's speech with great care, but he had not been able to gather any argument whatever which had convinced him that there was any necessity whatever for the step proposed. The general practitioners of the country were very well represented at the Council. As representing one of the corporations of England, he at once and distinctly said that he came there not only to represent that body, but deputed by that body to represent the whole profession, and all his acts at the Council related to the medical profession as a whole, and not for the College of Physicians of London. He maintained further that he represented at least some 50,000 general practitioners of this kingdom. Of that number he supposed that two or three thousand were represented by the representatives of the Royal College of Surgeons, and of that number perhaps more than 500 were represented on this Council by the representative of the Apothecaries' Society. How could it be said that the interests of the general practitioners were not being regarded by such representatives. He would like to ask Sir Walter Foster, as he appeared to speak in the name of the general practitioners, what possible grievance or what claim had been put forward by the general practitioners? In what direction had the best interest of all parts of the profession been neglected at the Council? Those consultants who had had the opportunity of meeting the most highly educated general practitioners never heard anything of this urgent demand. If the demand were granted he believed a great injury would be done to this country. He would vote a decided negative to this proposal.

Dr. ATTHILL expressed surprise at the illogical sequence between the speech of Sir Walter Foster and the motion. The speech and the resolution were antagonistic, and he could not understand what was to be gained by an increased number of direct representatives. The expense of registration did not fall directly on the medical practitioners, but on the parents of those who registered.

Sir JOHN SIMON said he seldom differed from Sir Wm. Turner, but he did so when he said that it was incumbent on this Council to discuss the motion seriously. He thought, on the contrary, it was essentially frivolous, and one that ought not on this occasion to be brought before the Council. The Council had decided twelve months ago that it was not a matter to be discussed here. Could it be pretended that the position of affairs had so much altered since then as to justify them in taking up the time of the Council by this discussion? It was an injustice to the Council and to the great interests for which the Council was sent here, and for the public for which it acted, for its time to be taken up with matters of no practical moment. He read in a journal that at a recent meeting of the Association "Sir Walter Foster had no objection to bring forward this matter; he had no objection to do this every year so long as he sat on the Council, and if the Association wished it he would, with a light heart, with much pleasure, and with all the energy he possessed again bring forward the question." He appealed to the common sense of Sir Walter Foster and his colleagues in the direct representation whether that was behaving fairly to this Council and to the public. Did Sir Walter Foster want to tease the Council until they grant this absurd demand? He wished that the opinions and protest expressed by himself and by Sir William Turner at the Royal Commission were current as a penny pamphlet. The poor medical practitioner had hopes held out to him that the Council could alter his lot. All at this table could, and did, sympathise with the struggles of the medical practitioner, although they could not alleviate them. Sir W. Foster knew as well as he knew that they could not alter the fate of any member of the profession, and the Council was not called upon in any vague sense to promote the welfare of the profession. It was not in the power of the Council to make the income of a man which was £200 a year £300 a year. To hold out such hopes was cruel in the last degree. He protested against it as an injustice to the duties they were called upon to perform that they should be distracted from those duties to discuss seriously a subject of this sort. In the journal referred to he found that the mover and the seconder of the motion for augmentation of the direct representation were, as far as he could understand, gentlemen whose names were before them to-day as candidates for seats at the Council. If everybody who wanted a seat at the Council was to be considered an authority upon its constitution, it came to be a question which could not seriously be discussed, and he modestly entered his strong protest against the time of the Council being taken up in this way. It might even become necessary for the Council to protect itself against a motion of this kind by a standing order by which the transaction of its ordinary duties should not be interfered with by debates which he considered frivolous.

Mr. BRUDENELL CARTER thought the reason why "this hardy annual" came before the Council was tolerably clear in view of the impending election, and after this year he hoped it would not be heard of for some time. The question had been reduced to one of the divisions of the kingdom, and appeared to be founded rather upon the number of licentiates from each division than upon the number of practitioners residing in each division. He pointed out that if the principle of direct representation were carried too far it would degenerate to a struggle among what Americans called "carpet baggers." It was a dangerous thing to introduce the element of popular election into a judicial bench of this kind.

Dr. WILKS argued that Sir W. Foster had not brought forward a single argument in favour of his proposition. He told them that he was speaking for certain of his constituents, but he was wise enough not to mention one of them. In his (Dr. Wilks') opinion that was a strong argument against the motion. The address which was now going round the profession was issued by two gentlemen who wanted to take Sir Walter Foster's place. They actually made the monstrous proposition that the age for entering the medical profession should be raised. [Sir W. FOSTER: It is not my production.] The only reason which Sir W. Foster gave for these gentlemen entering was because they wanted to enter.

Dr. LEECH said he did not support an increase in the direct representation on the ground that the Council had charge of medical professional interests. It seemed to him that the presence of direct representatives was for the purpose of strengthening the Council. Therefore he thought an adequate number of direct representatives was very desirable from an educational point of view. It would enable the Council to proceed with those alterations and advances which they had made, and which they would be bound to continue to make. There was a strong feeling in the profession—he was speaking more particularly of Manchester—that the number of direct representatives should be increased.

Mr. TEALE said it was most undesirable that there should be any increase in the number of direct representatives. There was a deliberate attempt being made on the part of the agitators to commit the present direct representatives to certain lines of conduct. If any one of the present direct representatives was thrown out, he would be thrown out because he had not the backbone to refuse to be pledged.

Dr. GLOVER thought it would have been a fatal mistake if the Council had not discussed this subject. He pointed out that the disproportion existing in the various countries admitted of no defence. This was a question which required speedy settlement, more so, as he maintained that the present number of direct representatives was not meant by the Legislature to be a final number. He thought the Council had shown an unfortunate want of sympathy with the general body of the profession, and the purpose for which the Council existed had been materially strengthened by the direct representatives.

Dr. STRUTHERS said that the registration fees were enacted in lieu of a stamp duty which had been proposed. He was sorry that some practitioners had the idea that this Council could do anything for them. They could do nothing except propose to them emigration. Practitioners did not seem to know anything about the Medical Act of 1858. Some day they might have a new Act and a new Council. But that was not the question before them now. He had no disrespect for the medical profession. It had been represented to the medical profession that this

Council were an exclusive body, and that the practitioners should send in some great reformers. With no disrespect for the medical profession, he must express the opinion that the whole thing was a blunder. Let them go to the House of Commons if they wished their grievances remedied, but not to a body such as this Council.

Dr. BRUCE expressed his sympathy with Sir Walter Foster's motion, while at the same time he appreciated the difficulty of making an increase in direct representation. He admitted that to add to the membership was a serious business. He approved, however, of the principle of direct representation, thinking that it increased the interest of the medical profession in the Council, and was for the benefit of the public.

Dr. HERON WATSON said they must look to the circumstances in which this motion was proposed. The direct representatives required a platform &c on which to ventilate their views. He could assure those gentlemen that from the work they had done they had made it desirable that they should all be returned for another period of five years.

Dr. MACALISTER said it must not be forgotten that many practitioners were graduates of the universities, and consequently were represented by the gentlemen sent to the Council by those institutions.

Sir WALTER FOSTER, in the course of his reply, thanked the Council for the manner in which reference had been made to the present direct representatives. At the same time, he thought it would have been better taste if some members had not imputed to them electioneering motives. It had been said that the medical practitioners should approach the House of Commons. He did not want them to do so. The House of Commons had given this Council a distinct duty when it considered it expedient to make representations to the Privy Council in order to obtain an increase of representation. He asked them to declare whether or not the time had come to accept that duty.

The vote was then taken, when twenty-one members voted against the motion, five in favour, and one member (Mr. Macnamara) declined to vote. The five members who voted for the motion were Sir Walter Foster, Dr. Glover, Mr. Wheelhouse, Dr. Leech, and Dr. Bruce.

The report of the remainder of the proceedings is held over for our next issue.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND ITS COUNCIL.

THE following correspondence has been forwarded to us for publication.

Roy. Coll. Surg. Eng., Nov. 13th, 1891.

SIR,—In reference to the resolution moved by you at the meeting of Fellows and Members on the 5th inst., I am directed to inform you that the Council see no advantage in holding a further meeting, and that a report of the meeting held on May 11th, 1891, will be found in the secretary's report at p. 312 of the College Calendar, dated the 9th July, 1891. I am, Sir, your obedient servant,

(Signed), EDWARD TRIMMER, Secretary.

H. Nelson Hardy, Esq.

(A similar letter was received by Dr. Ralph Gooding, the seconder of the motion referred to.)

[REPLY.]

London, Nov. 16th, 1891.

SIR,—We are in receipt of your letter of 13th inst., in reference to a resolution passed at a meeting of the Royal College of Surgeons of England on the 5th inst., and as we presume that the object of sending it to us is to acquaint those of whom we were the spokesmen at that meeting with the intention of the Council not to comply with the request contained in the resolution which was then passed by the College, we shall send copies of it and of this reply to the medical press for publication, unless we hear from you that there is any objection to our so doing. We were quite aware that a record of the meeting of May 11th, 1891, had appeared in the College Calendar; in fact, its insertion there and omission from the report of work done by the College had already been adversely commented on in the medical press. We do not gather from your letter that the Council directs you to justify such omission. We are glad to note that you are not directed by the Council to endorse the somewhat hasty dictum of the President that the resolution passed by the College was of a very offensive character, and we beg that you will assure the Council that nothing could be further from the intention of the mover, seconder, or supporters of the motion.

We are, Sir, yours faithfully,

(Signed) H. NELSON HARDY.
RALPH GOODING.

*** The crowded state of our columns, and the late arrival of the above, prevented its insertion in our last issue.—ED. L.

ROYAL STATISTICAL SOCIETY.

AT the first meeting of the present session, held in the Jermyn-street Museum on Nov. 17th, Dr. Mouat, the President, delivered the inaugural address. After a few preliminary remarks defining the functions of the Society and the real use of an opening address, Dr. Mouat proceeded to analyse briefly the work of the past session, to show that it was in touch and harmony with some of the leading questions of the time, and that the promises for the new session were equally indicative of the continuity which he considered should be observed in its proceedings. He then gave obituary notices of the losses by death during the preceding year, of which the most serious was that of his predecessor, Dr. Graham Balfour, and among its honorary members, M. Beaujon of Amsterdam, M. Veselovsky of St. Petersburg, and Ahmed Vefik Pacha of Turkey. Briefly referring to matters in his address of last year, he dwelt upon that of anthropometry and its application to the ethnological determination of the tribes and castes of the seventy-seven millions of the population of Bengal, with a part of which question he had himself instituted an inquiry in 1867. Respecting the external relations of the Society, he referred to the Imperial Institute, the Penitentiary Congress of St. Petersburg, the Congress of Hygiene and Demography, and the International Statistical Institute, with all of which the Society had been associated in greater or less degree. Respecting the last mentioned, he recorded the real origin in 1879, and deprecated the addition of an Indian section to future hygienic congresses. He then referred to the internal economy of the Society during the past session, the chief feature of which was the institution of a medal to reward statistical research and inquiry; and concluded by reviving the question of the relations of the Royal Society to all other scientific bodies in the British empire, and the expediency of a federation of all those bodies in the manner suggested in his "History of the Statistical Society," published in its jubilee year, 1885.

THE ELECTION OF DIRECT REPRESENTATIVES.

AT a meeting of medical practitioners of Ashton-under-Lyne, Stalybridge, Mossley, and Saddleworth, held in the Town Hall, Ashton, on Monday, the 23rd inst., Mr. W. Hugh Hughes, J.P., in the chair, it was unanimously resolved, "That, in consequence of the decision of Sir W. Foster, M P., and Mr. Wheelhouse (then received by telegram) to oppose any Bill having for its object the State registration of midwives, the support of the meeting be given to those candidates, together with Mr. Brown, as direct representatives on the Medical Council."

At a special meeting of the Southampton District, Southern Branch, of the British Medical Association held on the 21st inst., at Grosvenor-square, Southampton, the President, Prof. Godwin, in the chair, to consider the election of direct representatives to the General Medical Council, it was moved by Professor Cayley, seconded by Mr. Hall, and carried unanimously, that "in the opinion of this meeting the three retiring representatives, Mr. Wheelhouse, Sir Walter Foster, and Dr. Glover, are in every way worthy of our confidence, and will receive our hearty support at the coming election." Moved by Professor Notter, seconded by Dr. Bullar, and carried unanimously, that "a copy of this resolution be forwarded to all members of the district, the secretaries of the other districts of the Southern Branch, and to the three representatives."

THE NATIONAL DENTAL HOSPITAL.

THE annual dinner of the past and present students of this hospital was held last week at the Holborn Restaurant, and attracted a goodly attendance. Mr. John Langton took the chair, supported by Mr. Henry Morris, Professor Shäfer, Dr. Dudley Buxton, Mr. Roughton, Mr. S. J.

Hutchinson, Mr. F. Canton, Mr. H. Weiss, and many others interested in the hospital. This meeting, apart from its convivial aspect, was made the occasion of the presentation of prizes to the successful students of the academic year, and the bronze medals, which are exceptionally artistic, were assigned as follows:—Dental Anatomy to Mr. R. Bascombe; Dental Surgery to Mr. Cecil Bascombe; Mechanics to Mr. H. B. Rowe; Metallurgy to Mr. F. M. Farmer; Materia Medica to Mr. R. Bascombe. The "Rymer" Gold Medal for General Proficiency to Mr. R. Bascombe; the "Ash" Prize to Mr. Ashford; and the Students' Societies Prize to Mr. Keevil. Certificates were also awarded to Messrs. Nicholls, McFarline, and C. Bascombe.

Mr. John Langton, in proposing the toast of the evening, "The National Dental Hospital and Staff," shortly reviewed the history of this institution from its foundation in 1861. He had visited the hospital himself, and had been impressed with the way in which all the details had been worked out, scientifically as well as with regard to the comfort of the patients. He congratulated the National Dental Hospital upon the success of their students at the various examinations for which they had presented themselves, and he thought it would be well if all students in general hospitals went through a course of dental instruction. The Dean, Mr. H. Weiss, in responding, said that the number of patients treated had risen in a few years from 3000 to 40,000, and the present premises were inconveniently crowded; but after long negotiations they had secured a site for a new building contiguous to the one in Great Portland-street. Other toasts followed, and in the intervals the Meister Glee Singers gave several selections of music.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

The County of Surrey.—Dr. Seaton has issued a voluminous report to the Surrey County Council on the sanitary condition of that county. The report is chiefly based on the annual reports of the local medical officers of health; but it also contains evidence that Dr. Seaton has made himself personally acquainted with many of the more important conditions affecting the sanitary welfare of the county. Each district is dealt with separately, but a general report serves as an introductory chapter. The urban districts contain a population of 169,609, with an annual death-rate for 1890 of 14·4 per 1000, the rural districts, with a population of 233,012, having a death-rate of 13·2. Haslemere is especially referred to in the report, as it has also been in the pages of THE LANCET; but notwithstanding the publicity which has been given to the sanitary shortcomings of this favourite summer resort, Dr. Seaton still reports that, as regards its water-supply, the quantity is still very insufficient and the quality in many cases bad. The action of the County Council as regards the pollution of the Wey is beginning to have effect, Guildford taking the lead as to a system of sewerage; but the same provision has yet to be pressed forcibly on Godalming. On Mr. Jacob's suggestion Dr. Seaton has taken part in certain investigations concerning prevalences of infectious disease; and he has also, in different parts of the county, made some preliminary inspections as to the housing of the working classes. Dr. Seaton's report is issued in an inconvenient form. The matter it contains makes it worthy of a cover, and of either a complete Table of Contents or an Index.

The County of Stafford.—The second annual report on this county by Dr. George Reid is a well-arranged volume. Whilst the several districts are dealt with separately, in tabular form, as regards such matters as statistics, the grouping of the subjects treated is rather under special headings, such as diseases &c., than under the names of the constituent localities. On the whole county the death-rate for 1890 was 19·8 per 1000, the urban rate being 20·0 and the rural rate 16·3, Longton having the highest rate and Handsworth the lowest amongst urban districts. Where diminution in death has resulted, it is often in infants and as regards zymotic diseases—a circumstance that obviously affords an indication for future action with a view to further lessening of death. Phthisis is again specially referred to. No diminution in the death-rate from this disease seems to have permanently set in, and it is evident that the physical and other conditions leading to it require much consideration in the county. Grave defects attach, nearly throughout Staffordshire, to the methods for dealing with the excreta and refuse of the population, privy pits retaining their hold on the population, and producing as a result general nuisance and risk of disease and death. Waste-water closets are suggested as an available remedy, but it is to be hoped that in their adoption the necessity of such storage of slop-water as will secure a really adequate sudden flush will be steadily held in view. Public slaughter-houses are much needed, effete and useless by-laws require replacing by modern ones, and in the rural districts especially action with a view to secure wholesome dwellings for the working classes is wanted. With the advantages which so great an area of Staffordshire possesses in the matter of water-supply, the present mortality ought to be diminished, and we are glad to learn from Dr. Reid that, on the whole, the sanitary authorities are awakening to a fuller sense of the responsibilities imposed on them by the Legislature and entrusted to them by the population.

Bethnal-green.—This metropolitan district had a death-rate of 24·78 per 1000 last year, and its zymotic rate was 3·94. The diseases mainly going to make up the latter rate included the following numbers returned under the Notification Act:—Scarlet fever, 461; diphtheria and membranous croup, 422; and enteric fever, 130; there was also a good deal of measles, as indicated by 113 fatal cases. Dr. Bate gives a lengthened account of the sanitary legislation of 1890, and of its effect on the administration of Bethnal-green; he also quotes the report of the Housing of the Working Classes Committee of the London County Council, and gives details as to a condemned area abutting on Boundary-street in his own district. The condition of the majority of the dwellings alone would suffice for the condemnation of the area, but the increased death-rate which follows on residence in the special area is significantly shown by a comparison of the rates from certain groups of diseases within it and in the remainder of the Bethnal-green district. In the condemned area in question the zymotic rate is treble, the tubercular rate double, the "low type" rate quadruple, and the respiratory rate double that for the rest of the parish, although, as regards diseases not considered as materially influenced by sanitary circumstances, the rates for the two areas respectively were almost identical. Several useful disease charts and other maps form part of the report.

Bradford Urban District.—Dr. J. McLintock, besides submitting a report showing some excellently maintained sanitary work, gives certain very interesting items of information. Thus between 1870–80 the scarlet fever death-rate for the borough was 11·08 per 10,000, whereas between 1881–90 it stood at 2·95. The change is shown to have largely taken place subsequently to the year 1881, when compulsory notification commenced, but it must also be remembered that Bradford has long enjoyed means for isolating such a disease effectually in hospital. And this well-known hospital is to be maintained up to the most modern standard. Thus new wards for small-pox have been planned on the lines of securing that all ward air shall pass through a furnace before leaving the buildings; and it will be most interesting to learn hereafter what success has been attained in this direction. Then, again, modern steam-pressure stoves are to replace the hot-air ones; and, indeed, general progress is being made in several directions. We could wish to see such an item as "filthy privies cleaned and whitewashed" disappear from the report of the sanitary inspector. Why should such whitewashed sources of nuisance and danger be retained? Night soil is removed from amongst the houses by many thousands of tons; but it cannot conduce to the health of a town to retain such masses of filth in the midst of its houses, and yet this is a necessity where the regular Yorkshire midden-privy is still maintained.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5811 births and 3741 deaths were registered during the week ending Nov. 21st. The annual rate of mortality in these towns, which had increased in the preceding three weeks from 181. to 20·6 per 1000, further rose last week to 20·7. The rate was

20·1 in London and 21·2 in the twenty-seven provincial towns. During the first seven weeks of the current quarter the death-rate in the twenty-eight towns averaged 19·1 per 1000, which was 1·5 below the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 11·5 in Huddersfield, 13·2 in Halifax, 14·7 in Portsmouth, and 15·9 in Nottingham; the highest rates were 26·0 in Cardiff, 27·1 in Liverpool, 28·8 in Norwich, and 31·4 in Sunderland. The deaths referred to the principal zymotic diseases, which had increased form 332 to 399 in the preceding three weeks, further rose last week to 413; they included 112 from whooping-cough, 106 from measles, 65 from diarrhœa, 46 from "fever" (principally enteric), 48 from diphtheria, 38 from scarlet fever, and one from small-pox. No death resulted from any of these zymotic diseases in Plymouth and in Halifax; in the other towns the lowest zymotic death-rates were recorded in Birkenhead and Derby, and the highest in Manchester, Blackburn, Newcastle-upon-Tyne, and Sunderland. The greatest mortality from measles occurred in Liverpool, Norwich, Newcastle-upon-Tyne, and Sunderland; from scarlet fever in Oldham; from whooping-cough in Bradford, Cardiff, and Blackburn; from "fever" in Brighton and Salford; and from diarrhœa in Preston, Oldham, and Wolverhampton. The 48 deaths from diphtheria included 30 in London, 7 in Manchester, and 3 in Liverpool. One fatal case of small-pox was registered in Liverpool, but not one in any other of the twenty-eight towns; one small-pox patient was under treatment on Saturday last in the Metropolitan Asylum Hospital at Dartford, but not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1514, against numbers increasing from 947 to 1479 at the end of the preceding eleven weeks; the patients admitted during the week were 174, against 154 and 174 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding seven weeks from 171 to 370, further rose last week to 394, but were 22 below the corrected average. The causes of 73, or 2·0 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Bolton, Oldham, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were recorded in Liverpool, Sheffield, Halifax, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 18·7 to 28·4 per 1000 in the preceding five weeks, further rose to 31·2 during the week ending Nov. 21st, and exceeded by as much as 10·5 the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 21·0 in Paisley and 24·2 in Aberdeen to 34·4 in Glasgow and in Greenock and 42·2 in Perth. The 802 deaths in these towns showed an increase of 70 upon the number in the preceding week, and included 17 which were referred to whooping-cough, 9 to diarrhœa, 7 to "fever," 7 to scarlet fever, 6 to diphtheria, 5 to measles, and not one to small-pox. In all, 51 deaths resulted from these principal zymotic diseases, against 59 and 67 in the preceding two weeks. These 51 deaths were equal to an annual rate of 2·0 per 1000, which was slightly below the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 7 and 10 in the preceding two weeks, further rose last week to 17, of which 6 occurred in Glasgow and 4 in Dundee. The 7 deaths from scarlet fever showed a slight further decline from recent weekly numbers; 5 were recorded in Glasgow and 2 in Aberdeen. The fatal cases of "fever," which had increased from 5 to 21 in the preceding three weeks, declined to 7 last week, of which 5 occurred in Glasgow. The 6 deaths referred to diphtheria exceeded by 1 the number recorded in the previous week, and included 2 in Perth; and the 5 fatal cases of measles were all registered in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had increased in the preceding four weeks from 98 to 262, further rose last week to 314, and exceeded by as many as 172 the number in the corresponding week of last year. The causes of 68, or more than 8 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·4 and 28·8 per 1000 in the preceding two weeks, rose again to 33·9 during the week ending Nov. 21st. During the past seven weeks of the current quarter the death-rate in the city averaged 27·0 per 1000, against 17·9 in London and 19·7 in Edinburgh. The 226 deaths in Dublin during the week under notice showed an increase of 34 upon the number in the previous week, and included 13 which were referred to "fever," 4 to diarrhœa, 3 to whooping-cough, 1 to measles, and not one either to small-pox, scarlet fever, or diphtheria. In all, 21 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·2 per 1000, the rate during the same period being 2·3 in London and 1·2 in Edinburgh. The fatal cases of "fever," which had been 14 and 6 in the preceding two weeks, rose again last week to 13. The deaths referred to diarrhœa, which had been 9 and 4 in the previous two weeks, were again 4 last week. The 3 fatal cases of whooping-cough showed a decline of 2 from the number recorded in the preceding weeks. The 226 deaths registered in Dublin included 45 of infants under one year of age, and 50 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons were slightly below the number in the preceding week. Nine inquest cases and 7 deaths from violence were registered; and 75, or more than a third, of the deaths occurred in public institutions. The causes of 25, or more than 11 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

"BUTTON SCURVY" OR LEPROSY?

To the Editors of THE LANCET.

SIRS,—In his newly published book on "Leprosy"[1] Dr. Thin appears as an advocate of the doctrine that the disease is spread by contagion. He thinks that the contagiousness of leprosy should be preached in season and out of season. I should not have judged it necessary to address a letter to you merely to remark upon Dr. Thin's opinion, which, of course, he is well entitled to, as we all are to our several opinions; but I find that the corner-stone of the evidence adduced—or, perhaps, the keystone—is a case reported at Dublin in 1877, which, says Dr. Thin, "ought to satisfy every person of ordinarily constituted mind that a person became leprous in Dublin from close association with a leper who had acquired the disease in the West Indies." Here the implication is that anyone who refuses his assent to the inference from the facts must be abnormally constituted in his mind, and I find the same suggestion again on page 183: If any of us refuse "the evidence for the bacillus lepræ [being the sole and unassisted cause of leprosy]," it is because our minds are "so constituted." I may be permitted to remark that I have a personal interest in this style of controversy. During a good many years, and for what I think sufficient reasons, I have been unable to assent to one or more of the new pathological doctrines, as to which Dr. Thin says the profession is now "practically unanimous"; also, within a much more recent period, I have felt constrained, to my great regret, to differ from what I know well to be the solid opinion of the profession on the matter of vaccination. Anyone who takes side with a minority, or a small minority, has only himself to blame. It is, of course, easier, more pleasant, and more profitable to be in the full stream of professional accord. Recusancy has its own disadvantages; but it would seem to be visited as well with occasional gibes or taunts, which are perhaps not always intended to be taken seriously. One seems to have noticed from time to time of late the suggestion that So-and-so, indicating someone whose opposition was worth heeding at all, must be a person of a crooked understanding, just as ecclesiastics,

[1] Percival and Co.

consistently on their part, are wont to say that the vision becomes clouded by unbelief, or indifference, or sin. At all events, here is Dr. Thin, twice in the course of a book, reflecting with easy superiority upon the mental constitution of those who cannot or will not assent to certain views on great problems which, he says, are now, or soon will be, the "practically unanimous opinion of the profession." It is not because I wish to contend against his views of leprosy that I have examined a certain part of his evidence; but because, in dealing with other pathological questions, I have acquired a personal interest in the innuendo (made not once or twice) that those who stand without the practical unanimity of the profession do so for the reason that their minds are "so constituted."

Dr. Thin's account of this "often-cited" Dublin case is as follows:—"In 1872 he (Dr. Benson) had shown to the Medical Society of Dublin a man who was affected with leprosy, which he had contracted in the West Indies, where he had resided twenty-two years. After a certain time spent in hospital he returned to his own home, and died after about a year and a half. During this latter period his brother slept in the same bed with him, and wore his clothes. This brother, who had never left Ireland, except forty-six years before, when he had passed some time in England, became a leper, and was shown May 2nd, 1877, to the Medical Society of Dublin. There had been no other cases of leprosy known in the family." The importance of this case is obvious. Dr. Thin mentions it seven times, and in one place calls it "unique;" it is unique among cases adduced in favour of contagion from British experience, because all the rest are open to the rejoinder that the alleged contagion had arisen in one or other of the endemic seats of leprosy, so that the leprosy may have been due to endemic causes, and not to contagion. Hence the importance of the case, and hence the remark upon the mental constitution of those who may venture to gainsay it.

On turning to the facts (which are given in the *Dublin Journal of Medical Science*, vol. liii., 1872, p. 290, and vol. lxiii., 1877, p. 562), I find that they are not altogether as Dr. Thin has stated them. T. H——, aged forty-seven, left Ireland in 1844, and was in the East India Company's service (as a soldier) for twenty-seven years in India and in the East Indies. He came back to Ireland about 1870, and "for a year and a half after his return enjoyed excellent health." (That, of course, is a different thing from acquiring leprosy in the West Indies.) "But about nine months ago (the date of the paper is April, 1872) he began to be conscious that his health was not up to its accustomed standard, and soon he suffered a feverish attack, followed by sensations which he described as being those of creeping, itching, and tingling all over the body." Then came an eruption, first on the backs of the hands and on the fingers, which became swollen, tense, and itching like chilblains. After nine months he was sent up from Kilkenny county to the City of Dublin Hospital, and was found at that date to have the eruption "on every part of his body, from the crown of the head to the soles of the feet." The eruption consisted (1) of round spots the size of a groat, of dark hue with a somewhat coppery tinge, fading sometimes slightly under pressure, the skin feeling normal; (2) of spots otherwise the same, but having the skin decidedly indurated, though not elevated; and (3) of a set not only indurated and pigmented, but elevated in varying degrees from a very slight rise, like that of urticaria, up to the condition of a prominent rounded sessile tubercle; on the wrists, hands, and back of the neck the tubercles had reached their largest, a few having attained the size of a large bean. "The eyebrows, from their tuberculous condition, presented a heavy, overhanging effect." The eyelids, owing to the same, appeared greatly thickened, bloated, and half-closed, causing a most sleepy, lethargic expression of countenance; the eyelashes were scanty. The face was dusky, bloated, studded thickly with sessile tuberculous masses in all stages of development, varing from the size of a No. 3 shot to that of a filbert nut. There were tubercles at the angles of the mouth. The entire mucous membrane of the lips, cheeks, palate, pharynx, and under surface of the tongue was thickly studded with small tubercles, "and in the latter situation some had ulcerated." There was some affection of the conjunctiva, but not over the cornea. The mucous membrane of the nose was affected, the voice having a nasal twang. Then follows an account of the state of the epiglotto-arytenoid folds, and of the arytenoid cartilage, which are said to have been "studded with tubercles [? follicles], some having attained the size of a small pea." There was no tendency to diarrhœa and no fetor of the breath. "A careful examination of the surface of the body failed to reveal the presence of anæsthesia anywhere." The record ends without further reference to constitutional symptoms, prodromal or other. The man was shown at the Medical Society of the College of Physicians, Dublin, and a drawing was made of the eruption, which does not appear to have been published. Having been two months in hospital in Dublin, the patient went home to Kilkenny county, where he died a year and a half after; nothing is recorded of the subsequent course of his eruption or of the manner of his death. On May 2nd, 1877, his brother, who had slept in the bed with him and worn his clothes, was shown at the same Medical Society, presenting what seems to have been the same disease. But there is no detailed record of the brother's case, except that he had the same sepulchral voice, and that "the tubercles were more developed than those shown in Hebra's original plate." After the patient had been shown, Dr. W. G. Smith made some remarks, contending for the occurrence of sporadic cases of leprosy in Ireland in modern times. The only other speaker, besides Dr. Benson, who presented the case, was Dr. Lyons, who did not believe leprosy to be contagious, thought that "the term leprosy was somewhat vaguely used," and "would confine the term to what he believed to be the true disease, which destroyed the parts from a constrictive process of the areolar tissue, and produced loss of fingers, toes, nose, and so on."

I am at a disadvantage in not having seen the two cases, but so also is Dr. Thin. I speak also with deference about the diagnosis of leprosy, because I have seen only a few cases in London, although I have read much upon it and seen many pictures of it. The original illness, which began a year and a half after the man's return from the East, and was an interruption, seemingly abrupt, of a period of excellent health subsequent to his return, is in several important respects unlike leprosy, and in some striking particulars is like the curious disease called button scurvy, which used to be not uncommon among the poorer Irish in interior parts of the country. Thus the very first case recorded of the latter by Wallace had an excrescence on the nape of the neck, just as the case in 1872 had (perhaps also on "the crown of the head"); whereas in leprosy the nape of the neck as well as the scalp is not a characteristic seat of the disease. Again, the somewhat uniform size and shape of the spots (where there were no excrescences) suggest button scurvy, but not leprosy. If the Dublin record of 1872 had contained any reference to a dried secretion on the surface of the nodules, forming a kind of capsule to the excrescence underneath, the resemblance would have been clearer; but there is no description of the structure of the tubercles at all, although it is clear that some of them were elevations not unlike urticaria, and that none of them underwent the disintegration of leprous growths, the mucous membrane of the under surface of the tongue being the only part for which ulcerations are described. Again, the tubercles were "sessile" in the Dublin case, just as in button scurvy "the body of the tumour overhangs the pedicle on all sides" (Kelly). Also they appear to have been nowhere joined in confluent masses. As to the constitutional symptoms of leprosy, there is nothing in the Dublin record that appears to correspond to them; on the other hand, the absence of anæsthesia is positively stated. Button scurvy was reported in THE LANCET as late as Sept. 13th, 1851, by Mr. Kelly of Mullingar, who speaks of it as "a disease now becoming rare" in Kilkenny. But it might still have been in existence in Kilkenny county twenty years after without necessarily being present to the minds of physicians in Dublin. Button scurvy was admitted to be contagious, and to be usually caught from clothes and bedding. Corrigan mentions a case, the subject of which "was positive in his assertion that he was inoculated by the disease from secondhand clothing. In the country parts of Ireland where the disease is endemic, there is no doubt entertained of its being contagious. In the case from which the casts before you [at a clinical lecture] were taken, the patient said he never had any symptom of the disease until he lay in the same bed with a man who had a similar eruption. That man I had the opportunity of seeing, and the only eruption on him was a crop of venereal condylomata around the anus." Corrigan then remarks on the resemblance of

button scurvy to yaws, and proceeds: "Yaws has been supposed by some to be a variety of the leprosy of the East, and, if so, the persistence to the present time of a similar disease in Ireland" might be used as an argument to prove some ethnological doctrine dear to Sir Dominic touching the illustrious descent of the Irish race. The coloured plate in the Med.-Chir. Trans., vol. xiii., 1827, says Corrigan, is "execrable," but the accompanying description of the disease (by Wallace) is "exceedingly accurate."

I am not formally concerned with the positive diagnosis of the two cases shown at Dublin in 1872 and 1877, although I risk the opinion that the probabilities point to button scurvy. I claim, however, to have supplemented Dr. Thin's facts about them to such an extent that one may say *non liquet* to the diagnosis of leprosy without being thought queer or paradoxical, or obstinate or perverse.

I am, Sirs, your obedient servant,

Great Ormond-street, W.C., Nov. 19th, 1891. C. CREIGHTON.

CONSULTANTS AND GENERAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—Most consultants will, I think, agree with your correspondent "Fair Play," whose letter appears in your last number. But few practitioners seem to realise the great difficulty consultants frequently experience in inducing a patient to permit them to adopt the proper course, and write regarding the treatment, and the difficulty is especially great when, as is so often the case, the practitioner merely gives the patient the name and address of the consultant—a fact which is seldom mentioned unless specially inquired about. A note of introduction should invariably be given to the patient, or, still better (since the introduction is sometimes concealed), sent by post. Unless such a note, or at least a card, is received by the consultant, it is practically impossible for him to *insist* on sending the prescription to the practitioner; if it is, it becomes his duty to adopt this course, and the consent of the patient, when at first withheld, can generally be obtained by a little reasoning. But the subterfuges often adopted to obtain the prescription are extraordinary, and practitioners should not be hasty in their conclusions, and should especially remember how increasingly great is the burden of the consultant's correspondence. I need hardly say that these remarks do not apply to "Fair Play," but are merely suggested by his letter.

I am, Sirs, yours truly,

London, Nov. 23rd, 1891. W. R. GOWERS.

THE ALBERT UNIVERSITY AND FORMER LONDON STUDENTS.

To the Editors of THE LANCET.

SIRS,—Former London medical students, or those just about to pass their final examinations, and who have been looking forward to obtaining a degree from the proposed new university, should be indebted for the note of warning sounded in THE LANCET of the 7th inst. Since that note was published I have been anxious to hear whether any movement has been inaugurated with a view to having our status exactly defined and our position represented to the Privy Council. The subject appears to have been allowed to drift into its present unsatisfactory position because it is nobody's business to watch over our interests. The hardship and anomaly of our position, if we are ineligible to obtain the new degree after satisfactory examination, must be apparent to all who understand the circumstances under which the new university is to be established. I would suggest, therefore, that an association of former London students should be immediately established, having a committee formed by representatives who have studied in the various London medical schools, and that such committee should consider our present position, and take such early and necessary steps as may appear advisable to protect our interests. If steps of this nature have not already been taken, I shall be pleased to hear from any gentlemen who may be willing to coöperate with me in some such movement, or who sympathise with the object I have in view.—I am, Sirs, yours faithfully,

JAS. BUSFIELD, F.I.C., M.R.C.S., L.R.C.P.

63, Abbeville-road, S.W., Nov. 24th, 1891.

WANT OF ISOLATION ACCOMMODATION IN SOUTH HORNSEY.

To the Editors of THE LANCET.

SIRS,—In the parishes of Hackney and Stoke Newington, or Islington, if a case of infectious disease in a small and crowded house is notified to the sanitary authorities, they can procure its prompt removal to hospital, and carry out immediate disinfection of the premises; if a similar case is notified to the sanitary authorities in South Hornsey, they can do nothing—*or worse*. What is known as the Milton-road district of South Hornsey is actually *surrounded* by the parishes above mentioned, so we have this anomaly: a circle of metropolitan parishes with proper hospital accommodation, and at its centre an extra-metropolitan parish with no hospital accommodation at all. At the circumference of this circle notification is compulsory, at its centre it is optional, and, in my experience, is received with anything but effusive gratitude by the authorities.

On the 9th inst. I was called to see a child with scarlet fever, on the ground floor of a six-roomed house in the Milton-road district. The house was occupied by two families, numbering fourteen individuals. Of these, one was a woman recovering from a severe miscarriage, and four were men going to daily work from home, one of them being a milkman. I immediately notified the case at the Local Board, and called on the medical officer of health with reference to it. He was from home, but I saw his deputy. This gentleman entirely agreed with me as to the necessity for isolation, but regretted that they had nowhere to send such cases. He suggested, however, that I should write a certificate to the effect that the child's parents were able and willing to pay for its accommodation in the Liverpool-road Hospital, when the Board would provide the necessary funds *sub rosâ*; he warned me, however, that if the true source of the money were discovered the case would be refused admission. To such sorry straits is South Hornsey reduced in endeavouring to get rid of its infectious disease. I declined to take part in this, and ventured to suggest that an empty house in the neighbourhood might be obtained at a very small cost. This would surely be better than to allow the men (including a milkman, save the mark!) to go forth to their daily work from a house saturated with scarlet-fever germs. This suggestion was not acted on, and the further action of the sanitary authorities is somewhat remarkable. They advised the upstairs family to "get out" as soon as possible, the board to pay their expenses. They have "got out" accordingly, without, as far as I can discover, any preliminary disinfection, and I should think it very probable that they will carry with them to their new habitation, wherever that may be, the seeds of a plentiful future crop of scarlet fever.

Now, Sirs, I maintain that the state of things which I have described is not only anomalous, but disgraceful, and that until such time as the long-talked-of hospital is built, it is the duty of the sanitary authorities in South Hornsey to provide some temporary accommodation for the isolation of infectious cases. To leave them practically unisolated in the midst of this dense population is unfair to every ratepayer in it, whether he chance to live in South Hornsey or in one of the adjacent metropolitan districts, which have provided proper accommodation for themselves, but are yet powerless to deal with infectious disease in this extra-metropolitan parish within their borders.

I am, Sirs, yours obediently,

South Hornsey, Nov. 17th, 1891. G. ANGUS HUNT.

*** A letter has also been received from Dr. W. T. Wyatt, pointing out the above-mentioned defect in the Milton-road district.—ED. L.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In your issues of the 14th and 21st of this month it is stated that I have had the honour of being elected Mayor of Manchester. This is not the case. It is on Mr. Alderman Boadin T. Leech, and not on myself, that this office has been conferred. You furthermore allude to me as a member of the Court of the Victoria University. I was formerly a member of the Court, but my term of office expired some time since. I am, Sirs, yours truly,

Whalley Range, Manchester, Nov. 22nd, 1891. D. J. LEECH.

FEDERATION OF THE MEDICAL UNIONS OF FRANCE.

DELEGATE MEETING.

(FROM OUR SPECIAL CORRESPONDENT.)

LAST Sunday the seventh annual meeting was held at the Grand Hôtel, Paris, of the Concours Médical and l'Union des Chambres Syndicales Médicales de France. The Concours Médical is a society consisting exclusively of medical men, which now numbers more than 3000 members, and has for its object the defence of the interests of the medical profession. Its managing council constitutes what in England we should call a Parliamentary Committee, for its principal task is to watch all laws introduced in the Legislature affecting the medical profession, and to take the initiative in proposing new laws for the benefit of medical men. It has also formed in a number of provinces unions or syndical chambers of medical men, and has finally federated a number of these unions so as to constitute l'Union Médicale de France. Once a year, generally in the month of November, delegates from these provincial associations come up to Paris and elect the managing committee, discuss the questions of the day, and give instructions as to what steps should be taken during the forthcoming year. This organisation has been brought into existence by the efforts of Dr. A. Cézilly of Chantilly. According to the report presented last Sunday by Dr. Morat, treasurer of the Union, forty-two local medical unions had paid up their subscriptions, and possessed, in all, 1100 members. There were eighteen other unions adhering to the Federation which had not yet fully paid up the fees due. Nevertheless, there were some funds in hand to promote the Parliamentary and other action necessary for the defence of the profession. To the Society appertained the honour of having so pressed the Government that a project of law had now been introduced in the National Assembly for the organisation of the medical relief to be given to the indigent poor. The various clauses of this Bill were read out, and the delegates present proceeded to discuss *seriatim* each question involved. Article 4 of the Project of Law states that a free dispensary must be established in every commune. This was considered absolutely impracticable by the delegates. Article 12 stipulates that medical service shall depend upon the Bureau de Bienfaissance, which henceforth is to be called the Bureau d'Assistance Publique. There is a certain significance in this change of name, the former term conveying more the idea of charity, while the latter term would imply a nearer approach to the English principle of assistance given as a matter of right. On Article 14 a very lengthy debate arose, for it involved the constitution of what we in England would call the Poor-law Board or Board of Guardians, and the still more perplexing matter of deciding who should receive gratuitous medical relief, and what compensation should be paid by the local authority to medical men for giving such relief. A strong feeling was expressed that the board deciding such matters should consult the medical profession, and that medical men should sit on this board. It was pointed out that the poor, and sometimes persons who could not be regarded as poor, sought to obtain gratuitous medical relief, while the authorities tried to reduce the cost of such relief. The authorities, anxious to maintain their popularity among their electors, did not mind how many poor were relieved so long as such relief did not augment the local expenditure. Thus pressure was brought to bear from both sides to make the doctor work for little or nothing. Several delegates suggested that the tax should be fixed at so much for each person assisted. In that case the authorities very promptly reduced the number of persons to whom they gave tickets for medical relief. This system, the delegate from the Department of the Loire explained, had been adopted in his county, with the result that, whereas formerly there were 18,000 indigent poor receiving free medical aid, the number now was only 14,000. Another doctor declared that in his district the number had been reduced from 127 to 25 by this same system. Dr. Lascalles of the Gironde urged that it simply meant that the medical men had to attend upon the poor without any recognition whatsoever. With or without authorisation the poor came, the doctor could not very well refuse his assistance, and though he might claim fees from those who were not authorised to demand gratuitous aid, the fact that he claimed fees did not mean that they were paid. The system of payment per head worked round in the opposite sense. The doctor had constantly to urge upon the local authority to add names to the list of those entitled to relief. When the payment was not per head, then the doctor, on the contrary, was always complaining that relief was granted too readily to persons who might very well be called upon to pay. The feeling of the meeting was in favour of leaving each local authority to decide this point as it thought best. Still, it seemed evident that the payment per head would be preferred in the majority of cases. As to what that payment should be, the most modest ideas seemed to prevail. The fee, it was said, should be the same as that paid by a labourer who earns three francs per day. But the syndicates or unions of medical men in each locality should impose the fee upon the local authorities. That would be one of the functions of medical unions; they would have to see that such fees were not too small. The next question related to the choice of the medical man whose duty it should be to attend upon what we should call pauper cases. The majority were in favour of complete freedom—freedom for the doctor, freedom for the sick poor. The latter should select what doctor they chose, and the doctor would be free, on his side, to refuse to attend. The doctor would claim from the local authority the fees due for each visit he made. To this it was objected that abuses would arise, and that a spirit of competition between practitioners would be engendered, which it was the object of the medical unions to obliterate. The meeting unanimously agreed that vaccination must be treated quite apart; it formed in itself a public service which had nothing to do with poor relief.

Dr. Chaumier then raised a debate on the taxes imposed on medical men. He complained that some had been compelled to pay taxes for dispensaries where they only gave gratuitous relief. Complaints were also made that many doctors had been summoned by the police to attend upon cases of accidents &c., and had received no fees. It was explained that, according to French law, no fee could be claimed unless the requisition paper bore the statement that a crime was suspected. Finally, it was resolved that in qualifying for the profession a knowledge of Latin and Greek should remain obligatory.

The meeting now proceeded to elect its officers for the forthcoming year, and then adjourned. This terminated the business of the union or federation of the local medical unions of France.

About half an hour later the same delegates reassembled, with some addition to their numbers, and constituted the annual meeting of the Concours Médical. The principal subject discussed was that of benefit funds for medical men. Dr. Defosse explained that the pension fund started by the Concours Médical had been founded six years ago, and now possessed a reserve fund of £15,080 and 258 members. This did not seem much, considering that there were some 15,000 medical practitioners in France, yet it was a commencement. The fund worked on the principle that a doctor should commence paying £4 a year at the age of twenty-five. On his attaining the age of sixty he would receive an annual pension of £48. The £4 *per* year capitalised would in that time, at compound interest, amount to only £200, so that if the subscriber lived to the age of sixty-three he would recover the whole of his outlay. This could only be done on the condition that his claim became void if he died before the age of sixty. It was a work of solidarity between medical men, by which those who died young and in harness helped to pension those who lived to an age when they could no longer work. It should in nowise interfere with the ordinary assurance effected with the various insurance companies. He regretted that medical men knew so little about the various systems of insurance, and did not more widely avail themselves of their benefits.

The question of fees paid to medical men called upon to give evidence in law courts &c. was now raised. These were fixed, not by a law, but by a ministerial decree of Brumaire, 1811. It was now proposed that the law should confer on medical men the quality of experts, and thus entitle them to a higher fee. The Minister of Justice was willing to effect this change if it could be done without having to ask Parliament for an extra grant. Some time, however, had elapsed since this promise was made, and

nothing had yet been done. The meeting therefore decided to appeal once more to the Minister of Justice.

The meeting further resolved to support the proposal made by Dr. Paul Strausse, member of the Paris Municipal Council, to the effect that the town should give a subvention of £4000 to facilitate the teaching of medicine in the Paris hospitals. This would be of special advantage to provincial doctors, who often leave the Paris University, having very satisfactorily completed their theoretical studies, but who are still deficient in practical knowledge.

An interesting discussion followed as to the position of doctors in small localities with regard to the hospital of their district. The commission of administration frequently gave proof of extraordinary incapacity. An instance was given of an authority which, in answer to the demand of the local doctor, maintained it was quite ridiculous to try to separate infectious cases from the ordinary patients, and that the bed linen should only be changed when it was really dirty, even if a new patient was to be put in the bed. Many small provincial hospitals were managed according to rules established in 1804 and in 1811. The meeting thought that new and model rules ought to be drawn up for the management of all provincial hospitals, and it was decided that a special report should be prepared on the subject. The financial accounts of the Society were then examined, officers for the ensuing year elected, and the business concluded.

In an adjoining saloon a magnificent banquet had been prepared, and the delegates with their guests now proceeded to dinner. The great advantage of such a banquet is to place the members of the medical unions in personal contact with deputies and senators who, in the Houses of Parliament, take interest in medical Bills. Appropriate toasts were drunk on this occasion in honour of these guests by Dr. Cézegny and Dr. De Fourmestean, the president for the coming year of the Federation of Medical Unions. M. Rey, member of the Chamber of Deputies, replied, and described the Project of Law on Public Assistance which was under his charge in the House, and which the meeting had discussed during the day. The Bill imposed on all local authorities the obligation of organising relief for the sick poor. This as yet, in France, is only optional. The departmental assemblies, M. Rey felt convinced, were animated with a liberal spirit, and had many medical men as members. He was personally in favour of the free doctor and free patient system. The law would not impose this, but recommend it. He did not like the idea of a doctor becoming a local functionary. This would introduce political considerations which should have no bearing on the relief of the sick poor. Whatever tariff was established for the payment of fees, it would be acceptable, for doctors were so rarely paid that it would be better than nothing.

M. Trarieux, member of the Senate, expressed his warm sympathy with all syndicates, whether those of workmen or of members of liberal professions. He only regretted that, by a strange oversight, the law which legalised the creation of trade unions among workmen did not embrace professional unions. This shortcoming would have to be rectified, and when their position was legalised he hoped that all the practitioners of France would join the union. They had to wage war against the selfishness of the past, and proclaim the grand principle of "each for all." The unions would have to teach respect for the medical career and maintain the honour of the profession. It would keep the provincial doctors in touch with those who remained in the large towns and maintain in the minds of the former the full sense of the dignity of the profession.

Dr. Legendre proposed the foreign guest of the evening, THE LANCET and its representative.

Mr. Adolphe Smith, in replying, said he had noted with regret the modest tone of the delegates when the question of the fees the local authorities should pay to the practitioners who attended the sick poor was discussed. Modesty was a virtue, but justice was a still greater virtue. He had assisted at a sitting of the Chambers, and on that occasion the President of the Council, M. de Freycinet, had declared from the tribune that in the State arsenals and State workshops the Government did not seek to pay the minimum wage for which labour could be obtained, but, on the contrary, gave the good example of paying the maximum wage. When medical men worked for the community why should they not be treated on the same principle? In all countries members of the same trade or profession were seeking to unite and to curb the disastrous results of unbridled competition by opposing to it the principle of solidarity and the force of association. He was glad to see that the medical profession of France was not behind in this general movement, and hoped that they would not only unite nationally, but establish intimate relations with similar organisations in other countries. He concluded by drinking to the international federation of all scientific associations.

After a humorous speech from Dr. Lascalles, M. Vigié, member of the Chamber of Deputies, described how he had devoted his life to the defence of the French peasant, and for that reason was most happy to use his influence on behalf of the provincial doctor, who was the peasant's best friend. After an energetic denunciation of quacks from the medical correspondent of *La France*, the company adjourned for coffee and cigars. The evening terminated by a concert given for the entertainment of the delegates.

Paris, Nov. 23rd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Municipal Honours and the Medical Profession.

IN the leading article in THE LANCET of the 21st inst., on the above subject, the writer has fallen into an error. Dr. Leech, senior physician to the infirmary, is there described as having been elected Mayor of Manchester for the current year. It is his elder brother, Mr. Bosdin Leech, who is not a medical man, whom Manchester has elected for her chief magistrate. Dr. Leech has not hitherto taken any active part in municipal life; his time at present is far too fully occupied to permit of it, though we have in the person of Dr. Simpson an able representative of the medical profession upon the city Council, together with other medical members more representative of the general practitioner.

Deaths of two well-known Medical Men.

Two old and well-known members of the profession have recently passed away. Few Manchester men but knew Dr. Royle; a man of marked personality, he was one of the few remaining examples of "the old school" of practitioners. But it was outside the profession that he figured most prominently. As a county magistrate, he took an active part in magisterial work. As a politician, he was well known, and in 1885 he was a candidate for Parliament in opposition to Sir Henry Roscoe.—Mr. Thomas Dean's death occurred suddenly in the public streets. His health had been impaired for some months past by an attack of pleurisy, from the effects of which he had never thoroughly recovered. For some years he was police surgeon to the city police, and was formerly surgeon to the Ardwick and Ancoats Dispensary. He was one of the oldest of our Volunteers, having joined the old 3rd Manchester as surgeon so far back as 1859, from which regiment he retired a few years ago with the honorary rank of Lieutenant-Colonel.

Unqualified Practice.

Manchester, like most other large centres of population, suffers considerably from unqualified practitioners and from unprofessional methods of practice by some who are legally qualified. It may be pointed out that nearly all the work of this character here is conducted by strangers to Manchester, our own students and Manchester men proper seldom transgressing in this direction. A little less supineness on the part of the various licensing corporations in dealing with offenders would be hailed with delight by the bulk of medical men. The Pharmaceutical Society is far more jealous of the rights of its members; but a few weeks since it successfully instituted a prosecution at the adjacent borough of Bolton against a man who was illegally carrying on the business of a chemist and druggist, not being registered according to the requirements of the Act, and he was fined the full amount of £20 and costs.

Air Pollution.

The committee of the Field Naturalists' Society are continuing their minute investigations and analysis of the atmosphere in various parts of the city. For the past three months a regular examination has been going on, both of

the amount of pollution from sulphurous acid, organic matter, &c., and also an accurate measurement of the amount of light we get, not merely sunlight, but the total amount of actinic light, sunlight or otherwise. The interim report recently published, and the accuracy of which is guaranteed by the names appended, is, if it be true that "science is measurement," a very valuable contribution to scientific work in connexion with the analysis of town air and its various pollutions. The value of it has been recognised by a grant of £50 towards the expenses thereof from the Royal Society.

Provident Dispensaries.

The dispensaries here are as successful as ever, if mere number of members is the criterion of success. Some new buildings were opened last week in connexion with the Gorton and Openshaw branch, which, it is stated, is the only one of the nine Manchester branches which did not entirely pay its own way, although the numbers on the books of this branch were given as 1368. It was commended to the support of the artisans of that district, and truly so, as being preferable, far away, to the unqualified medical attendance which so largely prevails there, though to many a hard-working practitioner a doubt will cross the mind as to whether some of the thousands who are admitted to these dispensaries at the sum of 1*d.* per week ought not to be paying their doctor a more adequate amount, and not be dependent upon a *quasi*-charitable organisation for their medical attendance.

Manchester, Nov. 25th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Medical Profession and Coroners' Inquests in Newcastle.

A good deal of dissatisfaction is expressed at the manner in which the profession is treated in Newcastle as regards coroners' inquests. It used to be the custom that when a medical man was called in to a case requiring an inquiry by the coroner he was, almost as a matter of course, called to give evidence by the latter. Now this is nearly all changed; the evidence of the police surgeon, not that of the practitioner who attended, is sought. Very often the fee given by the coroner was the sole payment received, perhaps, for a brave, if futile, attempt to save life, and it was a consideration, and often useful, to a young practitioner to be thus recognised and paid by the coroner; and it is thought that in this way the spirit, at least, of the Coroners Act, so hardly won by the late Mr. Wakley, was for a time observed. A surgeon who has been in active general practice for the last fifteen years in Newcastle told me that he had never once been called in by the coroner, although he had his run of what is called coroner's cases. I am aware that most old and established men are very glad not to be called to inquests, but it is different with young men; and to my knowledge there is a good deal of discontent about the matter, more especially as across the Tyne, on the Durham side of the river, a contrary practice exists.

Zymotic Disease and the Death-rate in Newcastle.

The Newcastle Corporation have prepared from the reports of their medical officer of health (Dr. H. E. Armstrong) a chart of much interest, showing at a glance the general and zymotic death-rates of the town from 1868 to 1890. The chart gives prominence to the fact that an increased mortality has almost always been due to an increase in the zymotic death-rate. In 1870, for instance, the death-rate was 25·4, the zymotic death-rate being 3·9. The following year the general rate jumped up to 32·2, the zymotic rate being 9·3. In 1872 the general rate fell to 26·3, the zymotic rate declining concurrently to 4·5. In 1888 we had the remarkably low general rate of 18·5, the zymotic rate being only 1·3. This is one of the most useful and instructive charts ever issued by the corporation health office.

Hartlepool Port Sanitary Authority.

At the last meeting of the Hartlepool port sanitary authority, in reference to the Infectious Diseases Hospital belonging to that authority, it was stated that without compulsory power it was impossible to get the people to allow their fever cases to be removed to the present hospital owing to its situation being so close to the cemetery, thus causing it to be unpopular and suggestive. A motion was passed "that the hospital had answered its purpose, and the objection was purely a sentimental one." There is, however, a good deal of sentiment amongst sick people, rich and poor, and this should not be ignored in selecting a site for a hospital.

Sunderland.

The deaths last week at Sunderland numbered 83, which is equivalent to 33 per 1000 of the population. Measles, bronchitis, and pneumonia are the principal factors in this high death-rate. Influenza is also present in the borough, but so far only one fatal case has been noted. Some cases are also known to have occurred on board ship, but as the vessel has been in dock for some time there is reason to believe the disease was not imported.—At a late entertainment in aid of the Sunderland Eye Infirmary building fund, it was stated that during the last sixteen years no less than 15,000 cases had been treated at that useful institution. It is reported that there have been about 140 applications sent in in competition for the new lunatic asylum at Ryhope for the borough and district of Sunderland.

Newcastle-on-Tyne, Nov. 23rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Draft Ordinances by the University Commissioners.

THE commissioners have issued draft ordinances bearing upon the Medical Faculty. The first deals with regulations for the graduation of women. They ordain that it shall be in the power of the University Court of each University to admit women to graduation in Arts and Medicine. The University Court is empowered, after consultation with the Senate, to make provision for the instruction of women in arts and medicine, and that this may be done by mixed classes or by means of special lecturers; but no professor whose commission is dated before this ordinance comes into force shall be required, without his consent, to conduct classes to which women are admitted. The conditions for graduation as regards instruction and examination are to be the same for women as for men. The ordinance dealing with assistants to professors seems to leave things very much as they have been; they have the title of University assistants or demonstrators, but they are selected and dismissed practically by the professor, and their appointments require to be renewed from year to year. The ordinance dealing with lecturers gives the University Court power to appoint lecturers on any subject not taught in the University or not fully covered by the professors' lectures. These appointments are to be for five years, and the mode of remuneration is left open.

The Lord Rector of the University in Edinburgh.

Mr. Goschen, the Lord Rector of the University of Edinburgh, arrived in Edinburgh late on the night of the 18th inst., and was met by a large number of students at the station, who formed a torchlight procession and conducted him to the residence of Lord Kyllachy, whose guest he was. The following afternoon, after receiving the degree of LL.D., he delivered the rectorial address, taking for his theme the "Use of Imagination in Study and in Life." The ceremony took place in the Music Hall, which was crowded in every part, and the students gave their Rector a hearty welcome, and listened most attentively to the address. In the evening there was a symposium, which has become a popular function on great occasions. On Friday evening the right honourable gentleman was entertained at a banquet presided over by Lord Hartington.

Health of Edinburgh.

The mortality last week was 136, making the death-rate 27 per 1000. Diseases of the chest accounted for 55 deaths, and zymotic diseases for 3, of which 2 were due to whooping-cough. The intimations for the week comprised typhoid fever, 3; diphtheria, 3; scarlatina, 21; and measles, 4. Six deaths from influenza were reported.

The Pattison Bursary.

This bursary, which is of the value of £35, and was left to the Royal College of Physicians, Edinburgh, by Dr. T. H. Pattison, has been awarded to Mr. S. P. Smith for being

the candidate at the second professional examination who had passed the best examination in anatomy and physiology.

Influenza in Edinburgh.

For a third time Edinburgh, like so many other places, has been visited in epidemic form by influenza. It appears to have nearly as many fatal complications as the epidemic of the winter before last, while it is also more general, whole households in many instances being prostrated by it. One of its constant manifestations is bronchial irritation and catarrh, with severe cold, and most of the cases show very marked prostration.

Nov. 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Sir Patrick Dun's Hospital.

THE annual meeting was held last week, when clinical medals and certificates obtained during the past session were distributed. Previously to the distribution of the prizes by the Provost of Trinity College, the Rev. Dr. Haughton delivered an address, in the course of which he said that when students began to study medicine they saw what could be done by chemistry and physics. They began to study them separately, so much so that these subjects now formed a separate part of the arts curriculum of Trinity College. The natural sciences had invaded the arts course, and they would invade it still more; and he believed the time was not far distant when the natural sciences would be regarded as among the most valuable that highly educated men could study. He concluded by saying that the clinical medal had been awarded to Miss Emily Dickson.

The Want of a Convalescent Home in Dublin.

For many years past Sir C. Cameron, the medical officer of health for Dublin, has noticed that infectious diseases, but more especially typhus fever, is spread by patients going direct from the fever hospitals to their homes. He is of opinion that typhus fever, although not nearly so prevalent as formerly, will never be stamped out until Dublin is provided (1) with a convalescent hospital for infectious cases; (2) with a refuge for families who are obliged, or ought if possible to be obliged, to live apart from other families in consequence of fever affecting one or more of their members. The Public Health Act enables the corporation to contribute towards the maintenance of a convalescent hospital, and the Infectious Diseases Prevention Act of 1890 enables local sanitary authorities to provide shelters for families in which there is fever. Sir C. Cameron believes it would be desirable to establish such a shelter at once, and the Public Health Committee have requested him to ascertain the cost of providing a house in which persons could be located after returning from fever hospitals or while their homes were undergoing disinfection.

Direct Representation on the General Medical Council.

In addition to the candidature of Dr. Kidd, already referred to, may now be mentioned that of Dr. Corby, Professor of Midwifery, Queen's College, Cork, and surgeon to the South Infirmary and County Cork General Hospital. Dr. Corby is strongly of opinion that there ought to be a far larger proportion of the members of the Council elected directly by the registered practitioners, as they would then be more anxious to ascertain and give due weight to the opinions of the profession at large. He considers it is the imperative duty of the Council to maintain the highest possible standard for all the examinations of which they take cognisance, and he believes that their recent action with regard to the preliminary examinations is calculated to produce an effect the very reverse of that which they could desire. With regard to Ireland, the Colleges of Physicians and Surgeons were recommended to discontinue holding preliminary examinations, and the only portals the Council desire to recognise are those of Trinity College, the Royal University, and the Intermediate Education Board. Trinity College charges £15 matriculation fee, and the intermediate system of education is calculated to dwarf the intelligence and physique of the youth of the country. The prospect, then, as Dr. Corby points out, is that there will be practically no competition; and without competition the Council can hardly hope for efficiency. He thinks the Council might, by a series of resolutions, endeavour to influence the Legislature and public opinion on such important subjects as improving the status of medical officers of dispensaries and unions, and safeguarding the rights of naval and military practitioners.

Biological Association: Trinity College.

The opening meeting of the session was held last week, presided over by Dr. Earl. The new President (Dr. Macan) delivered the inaugural address, on "Recent Advances in Abdominal Surgery." He said that the most striking improvement which had taken place of late years was the substitution of aseptic for antiseptic measures. There could be no question, from a patient's point of view, as to the advantages of asepticism over antisepticism, nor could there be any doubt that when antiseptics were first applied they were directly responsible for a considerable number of deaths, and even when death did not follow, the convalescence was prolonged by the enormous amount of disinfectants used. The following resolution was adopted: "That the Dublin University Biological Association is worthy of the support of all students of medicine and natural science."

The governors of St. Mark's and the National Eye and Ear Hospitals have given notice that they intend to apply to Parliament in the ensuing session for leave to bring in a Bill to amalgamate the hospitals.

Mr. Wm. Russell, L.R.C.S., has been elected house surgeon to Monkstown Hospital.

Nov. 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Chromatic Gustation.

A SINGULAR example illustrating the intimate connexion obtaining between two apparently distinct senses was reported by M. Déjerine at a meeting of the Société de Biologie, held on the 11th inst. The subject of this peculiarity was a neurasthenic young woman, in whom the savour of certain sapid substances evoked luminous sensations, the colour perceived being always constant for the same savour. M. Déjerine christens this phenomenon *la gustation colorée*. The analogous phenomenon termed *l'audition colorée* has been known for some time, numerous examples being on record. Here an impression on the auditory nerve excites coloured impressions on the retina.

Suppurative Otitis Media Consecutive to Plugging of the Posterior Nares.

An interesting discussion on the dangers attending this common minor operation took place at a recent meeting of the Société de Laryngologie, d'Otologie, et de Rhinologie. The discussion was raised by a report made by M. Gellé of a case in point. The posterior nares had been plugged in the usual way to combat violent epistaxis in a man aged fifty, the subject of chronic Bright's disease. On the day following the plugging, symptoms of otitis revealed themselves, and when, on the fourth day, the tampon was removed the middle ear and the nasal cavity were discovered to be full of pus. M. Chatellier expressed his disapproval of posterior tamponment, believing that, as the hæmorrhage is invariably due to the displacement of a clot formed on the antero-inferior portion of the septum, the application of an anterior plug is adequate for the controlling of the flow. M. Gougenheim stated that when the material employed is composed of iodoform gauze, septic complications need not be apprehended, his own wide experience bearing him out in this statement. Anyone who has perceived the horrible fetor emitted by plugs on their removal will agree with M. Gougenheim, and avoid having recourse to the traditional rouleau of lint of our forefathers whenever he is called upon to plug the posterior nares.

Quackery at Havre.

The credulity of the inhabitants of this seaport town has been lately subjected to a rude test by three well-dressed, but not disinterested students of human nature, who, having put up at a first-class hotel, sent out bills announcing that all patients who had been "given up" by the faculty could be cured by them very promptly. There being at Havre, as in most towns, a large number of people who consider that

they rightly belong to this category of sufferers, a rich harvest was soon reaped by the *soi-disant Institut Dynamodermique*. The treatment prescribed consisted simply of the application on the surface, in varying numbers, of so-called *plaques dynamodermiques*. The chief of the band used to sign his prescription by the fanciful and pleasant name of Dr. de Monplaisir, a name familiar to me, for it used to appear regularly some few years back in the columns of a Paris daily journal at the foot of an article vaunting his method. Complaints emanating from some dissatisfied customers cut short, however, the career of the Institut at Havre, and the ringleader, who has, it appears, been fined several times in Belgium for illegally practising medicine, was condemned to pay a sum of 1000 fr.

Reappearance of Influenza in France.

It almost seems as if this mysterious disease, whose ravages some two years ago are doubtless in great part responsible for the recent serious decrease in the population of this country, has "come to stay." A severe epidemic is, in effect, reported from Périgueux and the surrounding districts. At Périgueux itself our *confrères* are said to be overwhelmed with work. All the students at the Seminary, fifty of whom were "down" with the disease, have been dispatched to their homes, and the *employés* at the workshops of the Orleans Railway Company have also fallen victims in large numbers. Cases have appeared at the barracks, the post-office, and in several schools. At the neighbouring town of Excideuil entire families are struck down, and the services of relatives from a distance have had to be requisitioned for nursing purposes. The epidemic, although widely spread, has, however, been of a mild type, the mortality not having hitherto been great. In Paris no death from this cause is registered in the bills of mortality for the past week.

Epilepsy and Marriage.

Should a person subject to epilepsy be allowed to marry? Many interests being involved in the solution of this difficult problem, most countries (with the exception, if I mistake not, of Belgium) leave the matter to the decision of the individuals themselves or of their friends. It appears, however, from the following ancient document, that as long ago as the sixteenth century the Catholic Church in France set its face against these alliances, deeming the existence of this nervosis in either of the contracting parties to be a sufficient bar to marriage. The following, which merits, I think, reproduction, is a translation from the original Latin text:—

Rupture de fiançailles, entre paysans, la fiancée étant atteinte de mal caduc (17 Mars, 1533).—"..... Par-devant nous, official et visiteur de l'Evêché de Luçon, ont comparu Nicolas ....., lequel nous a exposé que depuis un an, ou environ, entre les mains d'un prêtre et par paroles de futur, il a contracté avec Belutelle des fiançailles dont les bans ont été publiés; mais depuis il est venu à sa connaissance que ladite, sa fiancée, est atteinte de mal caduc. L'exposant s'est donc par ce motif présenté devant nous pour demander et requérir la rupture des fiançailles et obtenir la permission de se marier ailleurs; ..... et il affirme en outre par serment qu'il n'y a jamais eu entre sa fiancée et lui aucune copulation charnelle. ..... Lesquelles choses vues par nous et parties ouïes, nous avons cassé les fiançailles susdites."

We are told, however, that the liberated swain had to pay his ex-fiancée "six boisseaux de méture, un lit de plume avec traversin, avec une berne et deux aunes de drap gris."

Paris, Nov. 25th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Professor Gerhardt on Influenza.

IN showing some patients to his students the other day, Professor Gerhardt said: "The morbid symptoms which we comprehend under the collective name of influenza have repeatedly been observed before, and several epidemics of the so-called 'grippe' (those of 1847 and 1876, for instance) are on record. Such a pandemic, however, as prevailed two years ago had not occurred for a generation, and we had to deal with something quite new and unknown. It came to us from the east. In May, 1889, it broke out in Bokhara, rapidly overran Russia in Asia, and came to St. Petersburg in September. At first people would not believe the reports that came from there; the news that 50,000 people were lying ill in St. Petersburg was laughed at. The disease, however, spread rapidly all over Europe, radiating over the provinces from Berlin, Vienna, Paris, and London, and remaining mostly three or four weeks, never more than two or three months, in one place. Its course ran unmistakably from east to west; from us it went to America and then on to Eastern Asia. Now it seems to have arrived among us again after its journey round the world. The symptoms are remarkably various, and may be divided into three groups: 1. Catarrhal symptoms, which are hardly ever wanting; to this group belong cold in the head, coughing, &c.; pleurisy, endocarditis, and pneumonia may ensue. 2. Abdominal symptoms, to which peritonitis may be added. 3. Nervous symptoms, such as headache and faceache. The malady often takes an easy course, and is in general not very dangerous to robust people. It begins in most cases with high fever, which rapidly abates. In the graphic representation of the progress of the fever the steep and narrow one-day's curve seems to be characteristic. A vast number of sequelæ have been observed. Already existing diseases, such as pulmonary tuberculosis and diseases of the heart, often take an unusually rapid and fatal course under the influence of influenza. Influenza must be reckoned among the acute infectious diseases, and its contagious character may be regarded as proved. The spread of the disease is uncommonly rapid, and the time of incubation is often less than twenty-four hours, never more than two or three days. The question whether one attack protects the patient against future ones cannot be definitely answered; some immunity there must be, for the epidemic never lasts very long. Children are seldom attacked, sucklings never. Some people are temporarily insusceptible. Doctors, for instance, have often fallen ill at the end of the epidemic. The age from fifteen to twenty-five seems to be the most susceptible. No specific against the disease is known; the doctor must therefore confine himself to symptomatic treatment."

Professor William Miller.

Professor Miller, of the Dentists' Institute of Berlin University, has been called to the chair of Histology in the University of Pennsylvania. His special field is the study of the bacteria of the mouth. His researches on the relations between bacteria and necrosis of the teeth deserve special mention. He is the discoverer of a bacillus in the mouth nearly resembling the cholera bacillus in form. He is an American.

Professor Leyden on the Present Condition of Medicine.

In the Society for Internal Medicine, which has resumed its meetings after the summer recess, Professor Leyden delivered a lecture the other day on the Present Condition of Medicine. At the various recent medical congresses, he said, it was once more bacteriology that had played the leading part. The researches in this field of medicine were going on with unusual activity, and it was noteworthy that they were taking a much more immediately practical direction than formerly. The discovery of tuberculin was one great instance of this, and the attempts to cure by means of artificial immunity were still more important. These efforts had not yet led to any practical result, but they justified the brightest hopes. In Vienna, Professor Adamkiewicz was making promising attempts to cure cancer. Unfortunately, on the other hand, it seemed as if the experimental tendency were pressing too much into the foreground, and there was a danger of the younger generation overstepping the limits to which experimenting on patients might justifiably go. The physician deserved the patient's gratitude, not only for the success of his treatment, but also, and in a still higher degree, for his honest work, his conscientiousness, perseverance, and circumspection. It was not the disease, it was the patient, that made the highest demands on the physician's help.

Berlin, Nov. 25th.

ROYAL INFIRMARY, STIRLING.—The annual report for the past year is satisfactory. The total number of cases treated during the year was 2116. The cash statement of receipts and disbursements shows a balance in hand of £220 2*s.* 1*d.*

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Medical Advertising.

A FEW months ago THE LANCET reported that the Royal College of Surgeons of England, through its Council, had withdrawn the diploma of membership from a Dr. Paterson, of Sydney, because of certain unprofessional conduct on his part—viz., advertising. As Dr. Paterson is an M.D. Edin. and an F.R.C.S. Edin., the censure passed on him by the English College will have no effect on his professional status. And why the Royal College of Surgeons should have selected this one man for censure it is difficult to understand. There is a paper lying before me now, and haphazard I turn its sheets. On one page I read no less than five medical advertisements. Three of the advertisers place M.R.C.S. Eng. after their names, together with Edinburgh University degrees. These men are, of course, quite outside the professional pale, and by most medical men they are referred to as quacks. But if one watches closely the columns of our newspapers, it will be seen that almost every medical man who gets a chance has his advertisement occasionally. Men who esteem themselves in the forefront of the profession, and who look with abhorrence on the doings of the gang of venereal specialists, strive by all means in their power to bring themselves prominently before the public. Such announcements as these are very common: "Dr. Blank will shortly sail for Europe to make a study of Koch's treatment of consumption." After this has been announced several times, it is reported that Dr. Blank has booked his passage, and that during his absence in Europe his son, Dr. Blanker Blank, who has recently passed with high honours and taken the diplomas of the London Colleges or the Scotch triple qualification—there are nearly double the number of letters in the latter, and it is more valued in consequence—will look after the practice in his father's absence. Then when our voyager reaches England it is cabled out to the newspapers that he is on his way to Berlin, or has been there, having looked up M. Pasteur *en route*, and having made a full study of the methods, he has procured a supply of parataloid, with which he is hurrying back to Australia. On arrival he again advertises, and keeps the advertisements up for several months, that, "having returned from Europe, Dr. Blank may be consulted at his usual residence—specialty chest diseases." This is the kind of thing one sees every day in our leading papers, and the men who do these things are not ostracised. Another way of advertising is what may be called the "Thanks" method. Here is an example culled from a leading provincial paper of New South Wales:—"*Thanks.*—I, the undersigned, and my family beg to tender our heartfelt thanks to Doctor D—— for his skilful operation in removing the cataract from my eyes, having been blind for the last six years. I am now, under his successful treatment, able to see my husband and family once more, and to enjoy the blessings of eyesight, and, as a debt of gratitude, he (Dr. D——) may use this as he may think proper; and I shall be pleased to see anyone come and see me, and especially those that are afflicted, so that I can recommend them to the above medical gentleman." In many cases these thanks are no doubt inserted spontaneously by grateful patients, but I shrewdly suspect that in the majority of instances the grateful patients are instigated thereto by the pushing medical attendant. The Melbourne medical men are perhaps the greatest adepts at blowing their own trumpets. Just recently there was an election of surgeons and physicians to form the staff of the Melbourne Hospital. This is the institution in which the medical students of the Melbourne University are supposed to be instructed, and it might be supposed that the teaching staff of the hospital would be selected from amongst the men eminent in the profession either by the University authorities or by the hospital committee. No such thing. Melbourne is a democratic city, and the hospital staff is selected by the subscribers on democratic lines—one pound one vote. For weeks before the election the subscribers were addressed personally and through the press by medical aspirants. Election committees were formed, and admiring lady patients went around canvassing votes for "Dear Dr. Bacillus; he is so clever, you know." The whole affair was on a level with a New York ward election—advertising, scheming, intriguing, with all the paraphernalia one is accustomed to see on such occasions. Strangely enough, some of the best men came out on top, but men got on the staff who are in no way fitted for the posts they occupy, and both patients and students must suffer. A layman who watched the contest closely summed it up thus: "These men who aspire to be the lords of the profession carried round their wares and canvassed votes, as the butcher canvasses his customers for orders; they degraded themselves, and put themselves on a level with the street hawkers." And these be the gods in Israel. What an example to the rising generation of medical students! Your readers will understand from this sketch how very low a standard of professional honour is held in these colonies; and the Royal Colleges, when next they try an Australian diplomate for advertising or professional misconduct, ought to measure his offence by the Australian and not by the English standard. Medical etiquette, as understood in Great Britain and Ireland, is unknown here. The one and only aim is to become rich, and in the pursuit of wealth most of the kindly and honourable feelings which have characterised the profession and made it noble are trodden under feet.

Chloroform Deaths and Public Opinion.

I have two deaths to chronicle this month; one occurred in a private hospital in Sydney (the second death under chloroform in that institution this year), and the other in a country hospital. The first was that of a man forty-two years of age. Dr. Huxtable gave the following evidence at the inquest. The man was examined, and was found to be a fit subject for the administration of an anæsthetic; chloroform was administered in the usual manner, and, after about six or seven minutes' use of the drug, the man struggled violently; almost immediately after being placed in position for the operation his breathing suddenly stopped; restorative means were applied, but with no success. A little under two drachms of chloroform was administered; this was about the average. He had administered chloroform in some thousands of cases, and had never had a fatal case before; at the time he could not account for the sudden collapse of the deceased. A leading Sydney pathologist, Dr. Milford, deposed to having made a post-mortem examination of the body in the presence of Drs. Huxtable, Hull, and Rennie. He was not in any way interested in the St. Kilda Hospital. There was nothing to indicate during life that the deceased was not a fit patient for the administration of an anæsthetic; the deceased was in such a dangerous state that an operation was necessary. Death was due to asphyxia caused by chloroform vapour and accelerated by the state of the lungs; it was also due to syncope caused by the depressed state of the nervous system. The other case was that of a boy seven years of age, who died in the Deniliquin Hospital. He was being anæsthetised with chloroform for the purpose of opening an abscess. The cause of death was "failure of the heart's action." The frequency of these deaths has naturally roused public opinion, and up to the present the medical profession in the colonies have done nothing to allay the growing distrust in the public mind. An agitation is on foot to have a Royal Commission appointed in New South Wales to investigate the subject, and a petition has been presented to Parliament by the friends of those who have died, and others interested in the matter. After a long preamble, the petitioners declare: "To our mind, the only satisfactory inquiry to effect this object would be such as would cover the whole subject of the proper use and the abuse of anæsthetics, and to lay down strict and stringent rules, to be adhered to before admitting their use, and other indications that contra-indicate their being employed, and upon any neglect to carry out such rules, &c., to bring the persons so neglecting under the criminal law for murder or manslaughter, and as to which is the most suitable anæsthetic to be administered in particular cases, if any; that such inquiry would, if we may venture this suggestion, be thoroughly and satisfactorily held by a Royal Commission, consisting of six members—(1) a first-class chemist, (2) a retired Sydney physician, (3) a physiologist, (4) a physicist—a university man preferred, (5) a retired physician of British and continental experience, (6) a retired legal practitioner; that, in order that the inquiry may be exhaustive and satisfactory to the whole of the public, the commissioners may have the right to examine not only hospital medical staffs and others in the practice of the profession, but it is therefore desir-

able to entrust the inquiry to such medical gentlemen described above who have retired from the active practice of their profession or are persons of independent character and position, who would thus be in a better position to define what should be the future course to be adopted for the administration of these active agents rather than those who are engaged at present in the practice of their profession, and these gentlemen would be more likely to take that calm, judicious, and fearless view of the subject to enable them to frame rules for the safety of the public during the administration of these anæsthetics." In the present condition of public affairs, when Royal Commissions are as plentiful as blackberries in Kent, it is quite probable that a commission will issue to investigate this most important matter of public concern.

Oct. 1891.

Obituary.

THOMAS WHARTON JONES, F.R.S.

BY the death of Mr. Wharton Jones, on the 7th inst., in the eighty-fourth year of his age, we have lost the living presence of one of England's greatest physiologists. His fame will abide, and even increase, when the circumstances and influences amid which his reputation was at once made and thwarted become more remote, and lapse into the impartial domain of medical history. Indeed, his scientific work is historical already; for there are few persons now living who witnessed his earlier and more famous biological researches and discoveries.

Thomas Wharton Jones was born at St. Andrews in January, 1808, his father, a native of London, being at the time one of the secretaries of His Majesty's Customs for Scotland. On his father's side he was descended from a wealthy Shropshire family, and on his mother's side from an old English family, named Alliston or Elliston, of Essex and Kent, and from the family of Philipps of Chesham. The Ellistons sprang from one Alestan, a freeman, whose lands in several parishes in the county of Essex were, according to Domesday Book, confiscated at the Conquest. By a combination of unfortunate circumstances, very little, if any, of either the paternal or the maternal wealth came to Wharton Jones, and what patrimony he did inherit seems soon to have disappeared. His early education was obtained at schools in Stirling, Dalmeny, and at Musselburgh, where his father died in the year 1821. Shortly after this event Jones began attendance on the literary classes in the University of Edinburgh, and two or three years later on the medical classes in the University. He soon distinguished himself in anatomy, and from the year 1827 to the year 1829, or later, was assistant to Robert Knox, the eminent teacher of anatomy in Edinburgh. He then migrated to Glasgow, where he became associated with Dr. Mackenzie, the well-known ophthalmic surgeon, and with Professor Rainy. About the year 1835 he went to Cork, and for a time he engaged in medical practice there, devoting himself chiefly to diseases of the eye and ear. In 1837 he visited the principal universities on the Continent, and settled in London in the following year. Here he at once began the practice of his profession as an oculist, continuing at the same time his studies and researches in anatomy, physiology, and pathology. He became lecturer on these subjects at the Charing-cross Hospital, and afterwards Fullerian Professor of Physiology in the Royal Institution of Great Britain. In the year 1840 he was elected a Fellow of the Royal Society, and in the following year he obtained the diploma of Member of the Royal College of Surgeons of England, of which he was elected a Fellow three years later. In 1851 he was appointed Professor of Ophthalmic Medicine and Surgery in University College, London, and he occupied this chair for thirty years. In the severe winter of 1880-81 his health, never robust, suddenly and seriously failed; he resigned his professorship in the College, but in consideration of his long and distinguished services was appointed Emeritus Professor. He then retired to Ventnor, where he lived up to the time of his death, continuing, however, his favourite studies, especially those relating to the physiology and pathology of the circulation of the blood and of the state of the bloodvessels in inflammation. He also thought and wrote much on political and ecclesiastical history, and on genealogy. He wrote also a history of the Irish rebellion of 1641. This history has not been published, though a portion of it appeared about three years ago, entitled "Rule in Ireland from St. Patrick to Cromwell." His studies of Irish history led him to regard with great disfavour any proposal for Home Rule. He was a foreign member of the medical societies of Vienna and Copenhagen, and of the Société de Biologie of Paris.

Wharton Jones lived a long, full, and useful life. Sixty-one years ago he published a synopsis of a course of lectures on physiology and anatomy, and within the last few months he issued an interesting report on the State of the Blood and Bloodvessels in Inflammation, in which he acutely criticised a part of the modern doctrine of Inflammation and its advocates. The long interval between these two publications was one of unceasing intellectual activity, of scientific and historical research, of polemics, and of public professional labour. His published writings are widely scattered, but the following are the more important of those relating to anatomy and physiology. In 1835 he read a paper to the Royal Society, containing an account of his discovery of the germinal vesicle in the mammiferous ovum. About a year before this Coste had observed the germinal vesicle in the rabbit; but Jones's observations were certainly made without knowledge of Coste's. In 1837 he published in the "Philosophical Transactions" a paper on the First Changes in Mammiferous Ova in consequence of Impregnation, and on the Mode of Origin of the Chorion. Respecting this paper, it is interesting to find among the letters which Jones from time to time addressed to Dr. Mackenzie of Glasgow, and which are now in the possession of Dr. Thomas Reid of that city, a letter written in Berlin, and dated October, 1837, in which Jones tells of a meeting of naturalists and physicians at Prague, where he met Coste, and, addressing the meeting in French, combated Coste's views regarding the mode of origin of the chorion, and he adds, "Purkinje thought my views most in accordance with analogy.' In 1838 Jones wrote the article on the Organ of Hearing for the "Cyclopædia of Anatomy and Physiology"; and in 1841 articles on the Ear and Hearing and on Ectropion for Costello's "Cyclopædia of Practical Surgery." In the year 1846 an account of his observations on the Blood-corpuscle appeared in the "Philosophical Transactions." In this paper he announced his discovery of the spontaneous changes of shape and other movements—the so-called amœboid movements—of the colourless corpuscles in the blood of the skate, frog, and other animals, including man. These corpuscles he named "granule-cells," after Professor Vogel of Göttingen. In this paper also he protested that the multinuclear appearance of the cell after the application of acetic acid was artificial, and due to shrivelling of the walls of the single nucleus by the action of the acid. Simple as this observation may now seem, it is only within the last few years that its correctness has been generally recognised. About the year 1842 he contributed to the *British and Foreign Medical Review* certain reports on Inflammation, and in the year 1850 he obtained the Sir Astley Cooper prize for his classical essay on the State of the Blood and Bloodvessels in Inflammation as ascertained by experiments, injections, and observations under the microscope. This was supplemented two years later by a paper describing the phenomena of inflammation in the web of the bat's wing, his previous observations having been on the web of the frog's foot. In the Astley Cooper prize essay, which greatly increased our knowledge of the circulation through the capillaries, and elucidated the phenomena of the inflammatory process, he incidentally announced another important discovery—namely, the peculiar degeneration which takes place in the distal end of a divided nerve. As this change is usually associated with the name of Waller, it is but justice to state that Wharton Jones first observed it, and that he subsequently commended it to Waller as a matter worthy of further and fuller investigation. He referred to the change in these words: "It may here be observed that some days after section of the ischiatic nerve [of the frog], I have found that the primitive fibrils of the nerve of the web no longer present their natural homogeneous appearance, but, as in dead nerves, their medullary contents appear broken up and granular."

(Guy's Hospital Reports, vol. ii., part 1, p. 12, 1850.) In the year 1852 he announced the interesting discovery that the veins of the bat's wing, which are furnished with valves, are endowed with rhythmical contractility, and that the onward flow of the blood is accelerated by the contraction. In 1868 he published in the "Philosophical Transactions" a paper entitled "The Caudal Heart of the Eel, a Lymphatic Heart," and in the same year a paper entitled "The Phenomena observed to attend the Propulsion of Lymph from the Anterior Lymphatic Heart into the Vein in the Frog." He also wrote many other articles and reports on the Blood in Health and in Inflammation; on the Healing Process; on the Contents of the Hepatic Ducts; on the Anatomy of the Choroid Gland of the Fish's Eye (1838); and on the Muscle as a Neuromagnetic Apparatus (1843). It may also be mentioned that in the year 1833 he published a "Manual of Pharmacology," which exhibits the precision, comprehensiveness, and logical method which characterised his later work.

Illustrative of the catholicity of his intellectual tastes and pursuits, it may be mentioned that, in addition to his various contributions to medical and other scientific literature, he obtained in 1851 the Actonian prize for an essay on the Wisdom and Beneficence of the Almighty displayed in the Sense of Vision, and in 1858 he published a Catechism of the Physiology and Philosophy of Body, Sense, and Mind, and that in the year 1872 he edited for the Camden Society the life and death of his distinguished ancestral kinsman, Bishop Bedell of Kilmore, who perished in the Irish Rebellion of 1641, and of whom Fra Paolo Sarpi, the famous historian of the Council of Trent, declared he had "learned more from him than any other divine." In 1876 Mr. Jones published an interesting volume maintaining that the Darwinian doctrine of Evolution is unsanctioned by science.

A painful episode of Wharton Jones's early life, about which he never cared to speak, may here be mentioned. In 1827, when but nineteen or twenty years of age, he was, together with the late Sir William Fergusson and Alexander Miller, one of the chief assistants of Robert Knox, the famous extra-mural lecturer on anatomy in Edinburgh. About Christmas, 1827, there died, in the house of a man named Hare, an old pensioner named Donald, owing his landlord about £4. The funeral arrangements were complete, when it occurred to Hare that by selling the body to the anatomists he might recoup himself. This suggestion he confided to one Burke, promising him a share of the proceeds, and in the evening the two men visited Knox's class-rooms and negotiated the sale of the body for the sum of £7 10*s*. This money was paid by Jones, who, unsuspecting the crimes which were to follow, jocosely remarked, "He would be glad to see them again when they had any other body to dispose of." The ease and success of this first transaction with the anatomists soon led Hare and his too-willing tool, Burke, to the perpetration of a series of cruel and heartless murders, the discovery of which, at the beginning of November, 1828, so startled and shocked the whole community. The bodies of the murdered victims were sold by Burke and Hare to Knox for the purposes of anatomy. The public indignation on the discovery of the murders was so great that many persons did not hesitate to charge Knox and his assistants with being privy to the murders. Burke, however, declared in the condemned cell on Jan. 21st, 1829, that "Docter Knox never incoureged him, nither taught or incoreged him to murder any person, nether any of his asistents, that worthy gentleman, Mr. Fergeson was the only man that ever mentioned anything about the bodies. He inquired where we got the yong woman Paterson." A committee of investigation, with the Marquis of Queensberry at its head, was formed at the request of Knox to inquire into the truth or falsehood of the rumours in circulation against Knox and his assistants, and it reported, what every rational person anticipated, that it had seen no evidence "that Dr. Knox or his assistants knew that murder was committed in procuring any subjects brought to his rooms, and the committee firmly believe that they did not."

Looking back upon Jones's history as a physiologist, it is interesting to observe that, though he was a pioneer and one of the founders of modern physiology, he not only did not follow some of its later developments, but was in many respects out of sympathy with these developments. It is remarkable that while his discovery of the amæboid movements of the colourless blood corpuscles prepared the way for the modern doctrine of leucocytes, he himself never accepted the fundamental basis of this doctrine. It should be remembered, however, that his physiological investigations were made at a time when the facilities and opportunities for such researches were few and difficult, and the time and labour required correspondingly great. He did not realise that many modern discoveries had become possible, and even comparatively easy, in consequence of improved physical, chemical, and optical apparatus, and that what in his time required weeks and months to make out may, by the modern student, with present facilities, be accomplished in a few moments. He did not believe in "science made easy," and his distrust of some recent physiology probably arose from the fact that much of the teaching of physiology has since his time been made easy. He was a genuine philosopher; he had what Plato calls *ἔρεξιν τῆς θείας σοφίας*. He was filled with a passion for knowledge, wisdom, and truth, and spared no labour to acquire them. He worked zealously, continuously, laboriously. He could not understand the modern system of "cram" Hence as a teacher, whilst he repelled the careless or the casual student, he attracted and encouraged the serious and intelligent one, by his earnestness, his contempt for shams and all pretence in knowledge. Indeed, the only student he would recognise was a rational being eagerly striving after truth; not a vitalised phonograph into which sounds and sentences were to be uttered, only to be droned out again in the same order and sequence in an examination room. His method was that of observation, experimentation, and verification. When questioned by pupils, he did not return a mere didactic answer; his maxim was: "Let us look, let us see."

Though Wharton Jones's claim to a place in medical history mainly rests on his physiological investigations and discoveries, it will also be remembered that he was a distinguished ophthalmologist. He began his studies in ophthalmic medicine and surgery about sixty years ago under the auspices of Mackenzie, to whom from time to time he was most helpful in the preparation of the several editions of this author's famous work on Diseases of the Eye. The chapter on the Anatomy of the Eye and many of the pathological sections were written by Wharton Jones. In the year 1847 he published his own treatise on Ophthalmic Medicine and Surgery, the third edition of which appeared in 1865, and in 1869 appeared his able and acute but somewhat transcendental work, entitled "The Failure of Sight from Railway and other Injuries to the Spine and Head."

As in science he was philosopher, so as a practitioner of medicine he resembled the Greek *Ἰατρὸς* or the Latin *Medicus*, being, according to modern notions, a physician rather than a surgeon. He was learned, observant, sagacious, full of knowledge and experience. As an operator he was not showy, perhaps not dexterous in the narrow sense of the term, but he was successful as judged by results. Amongst some of the additions which he made to our knowledge was the suggestion that astigmatism is due to a fault of curvature of the cornea, and not to a fault in the lens, as the celebrated Thomas Young, who first described this anomaly, believed. He was also one of the first (if not the first) to observe the frequent association of retinitis pigmentosa with deafmutism and other neurotic disorders; and he devised an ingenious procedure for remedying cicatricial ectropion. In the course of his investigations and experiments with Calabar bean he noted the beneficial action of the local application of this drug in some cases of acute glaucoma before the special therapeutic properties of this drug in glaucoma had been observed, so far as the writer of this notice is aware, by any other person. His explanation of the *modus operandi* of Calabar bean in this disease was faulty, but the observation was well founded and correct.

Mr. Jones was of a retiring disposition, and for many years lived almost the life of a recluse. He made few personal friendships, and indeed had not the gift of attracting friends. But within an apparently rugged exterior and behind a manner seemingly harsh and unsympathetic, a few who really knew him discovered a kind and gentle spirit. He was pleased and even proud to number among his friends the late Sir James Clark, the late Sir John Forbes (editor of the *British and Foreign Medical Review*), the late Professor Thomas Graham, Master of the

Mint, the late Robert Grant, the comparative anatomist, and especially the late Dr. Mackenzie of Glasgow; and also his former pupils Professor Huxley and Sir Joseph Fayrer, his quondam colleague Sir William Jenner, and Mr. Commissioner Kerr. He was naturally modest, but he was also self-respecting; he was great, and knew that he was great. He knew the worth of his work, and he resented the studied depreciation of his labours by some of the nominal leaders of physiological opinion in this country. The feuds and controversies in which he thereby became involved did no doubt tend to embitter his life, check his worldly advancement, and prevent a due appreciation of his great abilities. These abilities were, however, of a very high order. Sir William Jenner in the presence of a large class once spoke of Wharton Jones as one of the greatest Englishmen who have ever lived. This may seem exaggerated praise to those who only knew Wharton Jones as a name; but Professor Huxley, an equally competent authority, has expressed with feelings of gratitude his intellectual indebtedness to the method and quality of Mr. Jones's physiological teaching.

Sir Joseph Fayrer writes: "I was a pupil of Mr. Wharton Jones during the three winter sessions of 1844–47, and have the most vivid and grateful recollection of the scope and value of his teaching. Indeed, I may say that any knowledge of biology I possess is based on the instruction that I received from him. He was a man of retiring habits and of slight, almost feeble, physique, but most earnest, enthusiastic, and impressive in his manner of imparting knowledge of the subjects he knew so well, and in which I imagine he was hardly excelled by anyone living at that time. His personal influence on his pupils was great, and he was as much respected as he was loved by them all."

J. T.

P. R. TOMLINSON, M.R.C.S., L.S.A. LOND.,

LATE OF WAKEFIELD.

THIS gentleman died at Southfield, Hornsea, on Nov. 14th. Mr. Tomlinson was a student at St. George's Hospital, and was a well-known athlete. He qualified about 1862, and soon afterwards was appointed house surgeon at the West London Hospital, Hammersmith, which office he held for about two years. His health being impaired with his work at Hammersmith, he went one or two voyages as ship surgeon, and finally settled down in practice in Wakefield, where unfortunately, while riding a rough horse, he injured his spine, and, paraplegia supervening, he was laid up for some time, but gradually recovered so far as to be able to walk with the aid of a stick, and at length to take carriage exercise. He was, of course, compelled to resign his practice, but retained so much of his former energy as to be able to follow the hunt in his carriage, and probably saw more of the hounds than many a man who followed on horseback. In spite of his terrible calamity he was always of a most cheery and genial disposition, at times suffering greatly, his wonderful pluck carrying him through many a serious attack. He died after a few days' illness, aged fifty. He was a zealous Freemason, and for many years Master of his lodge in Wakefield. It will be long before "cheery old Phil" is forgotten in his part of Yorkshire.

JOHN MORGAN, F.R.C.S.

MANY will have seen with sorrow and surprise the announcement of the death, after a few days' illness, of John Morgan, of 3, Sussex-place, Hyde-park. Few figures were better known, few personalities were more respected; and it is hard to believe that his cheery face and kindly presence will no more be seen among us. Born at Bath in April, 1820, he lost his father, who was himself a respected member of the profession, at a very early age. The father's family were Welsh, and the mother one of the Biggs of Wiltshire. For the sake of her only child's education, the widow resided first at Clifton and afterwards came to London, where her son entered at King's College, passing his holidays with his mother's relatives in Wiltshire. In course of time the son was apprenticed to Mr. Hodding, who practised in the neighbourhood of Dorset-square. He afterwards became a student at St. George's Hospital, and attended the lectures of Mr. Tatum and Mr. Charles Johnson at the school in Kinnerton-street. Here he gained several prizes, among others the Brodie Medal for Clinical Surgery, which was obtained thirty years later by his son, now surgeon to Charing-cross Hospital and the Hospital for Sick Children. In 1842 he returned to Bath as house surgeon to the United Hospital, and at first contemplated practising as a surgeon in that city. But by the advice of friends he returned to London, and in 1845 purchased a partnership with the late Mr. Edgar Barker, who then resided in the Edgware-road. Mr. Morgan settled in the neighbourhood of Hyde-park-square, and soon began to acquire an extensive practice. The region of South Kensington was at that time undeveloped, and the district in which Mr. Morgan practised was the resort of the wealthy and successful. His skill and knowledge, united to a sterling kindliness of manner, soon made him the trusted friend and adviser of many of these, and he owed much to the friendship of Sir Benjamin Brodie and Sir Charles Locock, who remained his friends until their deaths. About 1860 he moved to Sussex-place, having quitted the partnership, and worked alone. At this time the extent of his practice was very large, and few but those gifted with his strong physique and great energy could have accomplished the amount of personal labour and fatigue which was thus involved. Later on he was compelled to take a partner, but the character of his work was so essentially personal that he did not obtain much relaxation of his own labours. It enabled him, however, to give more time to his annual holiday, which he never denied himself, spending it either abroad or at country places which he rented. These were perhaps the happiest times of his life. Devoted to and beloved by all his family, he suffered a severe bereavement in the loss of his eldest daughter, followed a year later by the death of his wife, to whom he was most fondly attached. Soon after this he suffered from a severe attack of rheumatic fever, almost the first illness he had ever experienced. From this, however, he entirely recovered, but he felt himself entitled to more leisure, and for many years past was in the habit of travelling abroad every spring, whilst he spent his autumn at various country places, where he could enjoy his favourite amusements of riding and driving, and in visiting the houses of his many friends throughout England and Scotland. Though keenly alive to the progress of medicine, surgery always had for him the greatest charm. To all charities, particularly those connected with the profession, he was a constant and liberal donor, and there were few appeals to which he turned a deaf ear. An attack of influenza during last spring left consequences which he had barely thrown off when the acute attack of inflammation in the throat occurred which proved fatal in the course of a week. The great number of letters which poured in upon his family all testified to the wide esteem and affectionate regard in which he was held by all who had known him, whilst a more touching but impressive tribute to his memory was paid by the hundreds who attended the funeral service at the church and followed to the grave at Willesden, not a few of these having come from long distances in the country or sacrificed their hours of business; while a silent but sincere tribute was paid by no small number of the poorer classes who cherished the recollection of many an act of kindliness or generosity.

DR. IGNATIUS HIRSCHLER.

A REMARKABLE professional career was closed with the death of Dr. Hirschler, which took place on the 11th inst. at Buda-Pesth. Born of well-to-do Jewish parents in 1823, he received his primary education at Pressburg, his actual birthplace being Stomfa, a village near that city. Young Hirschler continued his studies at Pesth, and passed through his professional course at Vienna, where he graduated as Doctor of Medicine. He was assistant to Dr. Rosas, a well-known oculist, and in 1847, when in Paris, he became *chef* of the Ophthalmic Clinique of Desmarres and Lecturer on Diseases of the Eye. He also paid much attention to the study of microscopic investigations, which at that time awakened special interest, particularly in the physiological laboratory of Dr. Gruby. In 1879 Hirschler returned to his native country and commenced practice at Buda-Pesth, where he soon became famous through his successes in ophthalmic surgery. In 1851 he was a candidate for

the post of *docent* at the University, but, being a Jew, the Austrian autocratic Government refused the application. But although Hirschler was prevented from becoming one of the staff of the University, increasing private practice and the wards of the Ophthalmic Hospital for Children supplied him with abundant material for study, the results of which he embodied in communications to the Royal Medical Society of Buda-Pesth, of which he was a member. Some of his numerous assistants became renowned and skilful ophthalmic surgeons. He was one of the chosen company of earnest workers, the founders of the Hungarian School of Medicine, whose organ was the *Orvovi Hetilap*, started by Dr. Markusovsky thirty-four years ago. The ophthalmic section of this journal was under Hirschler's editorship till 1880, when general ill-health and the development of double cataract compelled him to abandon his practice. In everything that concerned the welfare of the profession Hirschler took an active part. He was president of the Medical Publications Committee, a society with objects similar to those of our own Sydenham Society. He was appointed by Government to the National Sanitary Council; and when the political question of Jewish emancipation was brought forward, Hirschler was looked up to as the mouthpiece of his co-religionists. His intercourse with the leading politicians of the day was in no small degree instrumental in bringing about the happy solution which followed. He was a member of the Academy of Sciences, was decorated by his Sovereign with the Iron Cross, and, as a crowning appreciation of his private worth and public merits, Dr. Hirschler, a Jew, was nominated a life member of the Upper House of Parliament, where he spoke on many occasions when sanitary and other questions affecting the medical profession came to be discussed. Through a successful operation he partially regained his eyesight, but continued to suffer from bad health, from which death relieved him on the 11th inst. The funeral took place on the 13th inst., amidst tokens of universal sympathy and regret, such as our departed professional brother so well deserved.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon Captain Thomas Moynihan retires on temporary half pay on account of ill-health (dated Nov. 25th, 1891).

NAVAL MEDICAL SERVICE.—The following appointment has been made at the Admiralty:—Fleet Surgeon Thomas C. Hickey to the *St. Vincent* (dated Nov. 30th, 1891).

VOLUNTEER CORPS.—*Artillery:* 1st Cinque Ports (Eastern Division, Royal Artillery): Acting Surgeon W. Curling resigns his appointment (dated Nov. 21st, 1891).—3rd Middlesex: Acting Surgeon J. I. Palmer to be Surgeon (dated Nov. 21st, 1891).—*Royal Engineers* (Fortress and Railway Forces): 1st Northamptonshire: William Easby, M.D., to be Acting Surgeon (dated Nov. 21st, 1891).—1st West Riding of Yorkshire (Sheffield): Surgeon W. D. James resigns his commission (dated Nov. 21st, 1891).—*Rifle:* 2nd Volunteer Battalion, the South Wales Borderers: Acting Surgeon R. J. Paton, M.B., to be Surgeon (dated Nov. 21st, 1891).—1st (City of Bristol) Volunteer Battalion, the Gloucestershire Regiment: Henry Skelton, M.D., to be Acting Surgeon (dated Nov. 21st, 1891).—3rd Volunteer Battalion, the East Surrey Regiment: Acting Surgeon J. E. Lane, M.D., to be Surgeon (dated Nov. 21st, 1891).

Medical News.

UNIVERSITY OF CAMBRIDGE. — The following Degrees were conferred on Nov. 20th:—

Doctor of Medicine.—Preston King, Cavendish Hostel.
Bachelor of Medicine and Bachelor of Surgery.—Percival Charles Low, Clare.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the subjects indicated:—

Surgery.—F. G. Bullmore, A. W. C. Herbert, and R. E. Nichols, St. Mary's Hospital; G. R. S. Breeze, Royal Free Hospital; R. T. Cassal, University College; J. Crooks, Toronto; A. T. Duka, Cambridge University and St. George's Hospital; R. K. Ellis and P. G. Laver, St. Thomas's Hospital; P. Goold, Cork; J. P. Jones, London Hospital; C. W. H. Newington and H. E. Simpson, St. Bartholomew's Hospital; D. Nowrojie, Madras; S. J. Roberts, Guy's Hospital.
Medicine, Forensic Medicine, and Midwifery. — F. J. A. Baldwin, W. Kershaw, and A. R. Walters, London Hospital; P. C. Bardsley, Cambridge University and University College; F. Turner, University College.
Medicine and Forensic Medicine. — G. R. S. Breeze, Royal Free Hospital; J. R. Daly, Manchester; R. Freer, Cambridge University and St. Mary's Hospital.
Medicine and Midwifery. — R. S. Fairbank, King's College; E. A. Humphreys, Manchester.
Medicine.—J. N. L'Esterre, St. Mary's Hospital; W. E. S. Jones, Guy's Hospital.
Forensic Medicine.—G. W. Lilley, Yorkshire College, Leeds; W. Loades and A. Paling, Middlesex Hospital; J. D. H. Smyth, St. Mary's Hospital; H. J. Thomas, Bristol.
Midwifery.—T. F. Daniels, Manchester; P. A. Shore, Birmingham; W. R. Thomas, London Hospital and Montreal.

To Messrs. Baldwin, Bardsley, Bullmore, Cassal, Crooks, Daniels, Duka, Herbert, Kershaw, Paling, Smyth, Thomas (H. J.), Thomas (W. R.), Turner, and Walters was granted the diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery, enabling the holder to compete for medical appointments in the Army, Navy, and India Service, also for Poor-law appointments.

APOTHECARIES' HALL OF IRELAND.—The following registered Physicians and Surgeons, having passed the necessary examinations, have been granted the Diploma of this Hall:—

Patrick James Byrne and William James Ring, Cork; John William Goldon, Parsonstown; John Esmonde, London; Charles Forsythe, Derry; Joseph Herbert Anderson, Armagh; John Woodrow Watson, Limavady, Derry.

DONATION.—Lord Ardilaun has contributed £100 to the Rotunda Lying-in Hospital.

HEMSWORTH UNION WATER-SUPPLY.—The rural sanitary authority of this union are taking steps to procure a provisional order for acquiring lands and easements in connexion with an extensive system of water-supply. A scheme has been adopted, and the water from the source selected is stated to be exceptionally pure. The estimated cost is £28,000. The Hemsworth Union comprises twenty-four townships, of which eleven are included in the proposed scheme.

PRESENTATION.—Dr. Wm. E. St. Lawrence Finny has been presented by Lady Henrietta Guinness and Lady Geraldine St. Lawrence with a very massive and beautiful French antique inkstand, belonging to the period of Louis Quinze, designed in seashell pattern, bearing a plate on which is an engraved inscription. This presentation is made in further recognition of medical attendance on their brother, the late Captain the Hon. Kenelm Digby St. Lawrence, who was heir to the Earldom of Howth.

CATHOLIC UNIVERSITY MEDICAL SCHOOL, DUBLIN. The session was inaugurated on the 20th inst., when the following prizes and exhibitions were awarded for the past session:—First Year's Exhibition (£14 14*s.* each): John A. Roughan and Patrick Quinn. Second Year's Exhibition (£10): William Dargan. Third Year's Exhibition (£15): John Shine. Final Exhibition (£20): John Rourke and Patrick Bennett. Osteology Prizes: First, Thomas Conlan; second, Joseph Dwyer. Medical Jurisprudence: First, Thomas Donovan; second, Patrick Bennett and Michael Brick (equal).

FOOTBALL CASUALTIES.—A Rosslyn Park three-quarter back player, whilst playing for his club against a Kensington team at Gunnersbury-lane, Acton, on Saturday, dislocated his humerus. On the same day, in a football match at Sparkhill, a young man sustained a compound fracture of the left leg; and a youth, whilst playing football, dislocated his elbow-joint. On the same day a young man was received into the General Hospital, Birmingham, having sustained an injury to his leg whilst playing football. During an Association football match at Ealing, on the 18th inst., a player broke his leg. On Saturday, whilst playing for Nortonthorpe "A" Team against Denby Dale, a young man had his femur fractured. On the same day a youth, playing football against Clydesdale, had his leg fractured. At Clurk, North Wales, a similar accident happened to a player whilst playing for the home club against Newtown.

GREAT NORTHERN CENTRAL HOSPITAL.—By the death of Mr. R. A. Newbon this charity benefits to the extent of £15,000.

THE NEW INFIRMARY, SOUTHPORT.—It is stated that the Mayor (Mr. Alderman G A. Pilkington, M.R.C.S., J.P.) will head the subscription list about to be opened for the erection of a new infirmary in connexion with the centenary celebrations with a donation of £1000, and that Mr. John Geddes, a member of the infirmary committee, will also subscribe a like sum, promised some time ago, conditionally.

CHICHESTER INFIRMARY.—The sixty-fifth anniversary meeting of the governors was held on the 18th inst. The good work accomplished by the institution during the past year is very satisfactory. The exceptionally severe winter filled the wards with patients. The financial equilibrium between income and expenditure anticipated had not been realised, but some progress in that direction was made. The total expenditure for the year amounted to £2819. The receipts from the private nursing branch continue to be satisfactory.

DINNER AND PRESENTATION TO DR. BEDDOE OF CLIFTON.—Dr. Beddoe having retired from the practice of his profession, which he had carried on in Clifton and its vicinity for thirty years, was on Tuesday last entertained at a complimentary dinner, on which occasion a casket and an illuminated address were presented to him. Dr. Henry Marshall presided, and, in presenting the testimonial, gave a sketch of the professional career of Dr. Beddoe, of which he spoke in the most commendatory terms. The dinner was attended by many of the more prominent physicians and surgeons of the neighbourhood, and the whole proceedings were of the most gratifying character.

PROPOSED NEW METROPOLITAN LUNATIC ASYLUM. At the usual weekly meeting of the London County Council, held on Tuesday, the Asylums Committee, after considerable inquiry and investigation of the subject, submitted their report for providing adequate additional accommodation for the increase of lunatic patients, which is computed to average 300 per annum. The recommendation of the committee, after some discussion, was approved. Professional assistance is to be obtained to enable the committee to select a suitable site for the erection of asylum buildings to accommodate 1000 patients.

GENERAL PRACTITIONERS' ALLIANCE.—A meeting of the Council of this Society was held on Tuesday, Nov. 17th, 1891. Present: Mr. George Brown (President) in the chair; Dr. J. W. J. Oswald, Dr. J. Savage (hon. treas.), Drs. J. Dawson, Hugh Woods, Campbell Boyd, and W. E. Dawson (hon. sec.). The minutes of the last meeting were read and confirmed. Several duly registered general practitioners were elected members of the Alliance. The following gentlemen also were elected District Secretaries: Dr. R. H. Barkwell (Wandsworth); Dr. Edridge-Green (Willesden); Dr. R. W. Jones (Westminster); Dr. Walter Moore (Stourport); and Dr. W. W. Stocker (Brondesbury).

HOSPITAL SUNDAY FUND.—On Tuesday a meeting of the Council of the Hospital Sunday Fund was held at the Mansion House, the Lord Mayor being in the chair. The report determined by the Council showed that the amount collected this year was £45,330, of which £36,310 was received from 1711 contributing congregations and £9019 from special donations and legacies, including £5000 from the late Duke of Cleveland and £1000 from Sir Savile Crossley, M.P. The total amount was £2515 in advance of any previous year. It was decided to recommend the names of Lord Charles Bruce, Lord Sandhurst, Sir Joseph Savory, Hon. and Rev. Canon Pelham, Mr. Reginald Acland, and the Rev. R. S. Hassard to fill vacancies on the Council, and to appoint Sir James Whitehead to succeed Mr. Thomas Hankey on the committee of distribution. The annual meeting of constituents of the fund was fixed for Dec. 14th at the Mansion House. It was decided to suggest Sunday, June 19th, for Hospital Sunday next year.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on November 24th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	247	51	1	59	..	358	442
North-Western Hospital	309	54	..	19	1	383	411
Western ,,	109	23	..	15	1	148	224
South-Western ,,	171	28	..	53	5	257	340
South-Eastern ,,	204	18	4	124	3	353	454
Northern ,,	422	32	..	28	...	482	480
Totals	1462	206	5	298	10	1981	2351

SMALL-POX.—*Atlas* hospital ship, 1.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAM, G. R. W., M.B., C.M. Edin., has been appointed an Honorary Medical Officer of the Women's Hospital, Melbourne, Victoria, South Australia.

BALFOUR, G. W., M.D. St. And., F.R.C.P. Edin., has been appointed Consulting Physician to the Leith Hospital, vice Struthers.

BANKS, A., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

BARRETT, J. W., M.B., B.Ch. Melb., F.R.C.S. Eng., has been appointed Honorary Assistant Surgeon to the Eye and Ear Hospital, Victoria, South Australia.

BOX, C. R., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

BUCHANAN, R. M., M.B., C.M. Glasg., has been appointed an Extra Dispensary Physician to the Western Infirmary, Glasgow

CAMPBELL, H. J., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Assistant Physician to the East London Hospital for Children.

COBBETT, L., F.R.C.S., L.R.C.P., has been reappointed House Surgeon to St. Thomas's Hospital.

DALZELL, A., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

DAVIS, D., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the St. Helens Friendly Societies' Medical Aid Association, vice Fourquemin, resigned.

DAVIS, MARCUS, L.D.S. R.C.S., has been appointed Senior Surgeon of the National Dental Hospital and College.

DEIGHTON, FRED., M.A., M.B. Camb., M.R.C.S., has been appointed Assistant Surgeon at Addenbrooke's Hospital, Cambridge.

DICKSON, B. D., M.D. Dub., L.K.Q.C.P. Irel., has been appointed Health Officer for the Tarnagulla Borough, Victoria, South Australia.

DICKSON, ROBT. HARPER, L.R.C.S., L.R.C.P. Irel., has been appointed Medical Officer of the Newcastle-under-Lyme Union Workhouse, and District; Public Vaccinator for the Newcastle District; and Medical Officer of Health for the Newcastle-under-Lyme Rural Sanitary District, vice James Yates, resigned.

DURHAM, A. ELLIS, M.B., B.C. Cantab., has been appointed Resident Clinical Assistant to the Bethlem Hospital, vice Distin.

FETHERSTON, R. H. J., M.B., C.M. Edin., L.R.C.P., L.R.C.S. Irel., has been appointed an Honorary Medical Officer of the Women's Hospital, Melbourne, South Australia.

GERVIS, A. F., M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Haverstock-hill and Malden-road Provident Dispensary.

GODFREY, G. P., L.R.C.P., L.R.C.S. Edin., has been appointed, *pro tem.*, Medical Officer for the First Sanitary District and Workhouse of the Mansfield Union, vice T. Godfrey, deceased.

HALL, F. W., M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Eastern Counties Asylum for Idiots, Colchester, vice J. Lloyd Roberts, resigned.

HARPER, J. R., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

HAYDON, T. H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

KELLOCK, T. H., M.A., M.B., B.C. Cantab., L.R.C.P., F.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

LATTER, C., B.A., M.B., B.C. Cantab., has been appointed Resident House Physician to St. Thomas's Hospital.

LITTLEWOOD, J. O., L.R.C.P. Lond., M.R.C.S., has been appointed, *pro tem.*, Medical Officer of Health for the Mansfield Rural Sanitary District of the Mansfield Union, vice Standen, deceased.

MARSDEN, R. S., M.B., C.M. Edin., has been appointed Medical Officer of Health for Birkenhead.

MCCAULLY-HAYES, H. W., M.R.C.P., L.R.C.S.E., L.F.P. & S. Glasg., L.M., has been appointed Medical Officer for the Third District of the Swindon and Highworth Union, and Public Vaccinator, vice G. R. Schemilt, deceased.

PERKINS, J. J., B.A. Cantab., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

PUDDICOMBE, W. N., M.R.C.S., has been appointed Public Vaccinator for the St. Albans Second Sanitary District of the St. Albans Union.

PURVIS, W. P., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

RYAN, J. P., L.R.C.P., L.R.C.S. Irel., has been reappointed Honorary Surgeon to the Eye and Ear Hospital, Victoria, South Australia.

SCUDAMORE, L. G., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

SHEARER, D. F., B.A., B.M., B.Ch. Oxon., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

TREED, S. V., L.R.C.P. Edin., M.R.C.S., has been appointed Health Officer for the Mornington Shire, West Riding, Victoria, South Australia.

TOLLER, S. G., L.R.C.P., M.R.C.S., has been appointed Junior Ophthalmic House Surgeon to St. Thomas's Hospital.

TOOGOOD, F. S., M.D. Lond., M.R.C.S., has been appointed Medical Officer for the Infirmary and Workhouse of the Parish of St. George-in-the-East.

UMNEY, W. F., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

USHER, C. H., B.A., M.B., B.C. Cantab., has been reappointed Senior Ophthalmic House Surgeon to St. Thomas's Hospital.

WAINWRIGHT, W. L., L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

WALLACE, C. S., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

WATSON, WILLIAM, M.R.C.S., has been appointed Medical Officer of Health to the Rochester Town Council.

WOODFORDE, W. S. R., M.B., C.M. Edin., has been appointed Health Officer for the Swan Hill Shire, Lower Murray Riding, Victoria, South Australia.

WYMAN, C., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon. Salary £50, with board and washing.

BICESTER UNION (in the Counties of Oxford and Buckingham).—Medical Officer for the Islip District. Salary £58 per annum, with vaccination and extra medical fees. (Apply to the Clerk to the Guardians, Bicester.)

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Board and residence and allowance for washing provided. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary 100 guineas per annum. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Anæsthetist.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Senior Resident Medical Officer. Salary £70, with board, washing, and residence.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Surgical Registrar and Anæsthetist for one year, an honorarium of £40 being voted at the expiration of that term.

HULL ROYAL INFIRMARY.—Assistant House Surgeon for one year. Salary £60, with board and furnished apartments.

HULL ROYAL INFIRMARY.—Senior House Surgeon. Salary 120 guineas per annum, with board and furnished apartments.

METROPOLITAN ASYLUMS BOARD.—Medical Superintendent for the Eastern Fever Hospital, Homerton, N.E. Salary £500 per annum, with unfurnished residence, coals, gas, and washing. (Apply at the chief offices of the Board, Norfolk House, Norfolk-street, W.C.)

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—House Physician. Salary £100 per annum, increasing £10 per annum (at the discretion of the committee), with furnished apartments, board, and washing.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant for one year. Salary £120 per annum.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ST. COLUMB MAJOR UNION.—District Medical Officers and Public Vaccinators. (Apply to the Clerk, St. Columb.)

ST. THOMAS'S HOSPITAL, S.E.—Demonstrator of Physiology.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80, rising £10 annually to £100, with board and residence.

TO MEDICAL, care of Messrs. Lee & Nightingale, Advertising Agents, Liverpool.—Qualified Man as Medical Superintendent for Private Asylum. Salary £200 per annum, with board and furnished apartments.

TOWNSHIP OF TOXTETH PARK.—Senior Assistant Resident Medical Officer at the Workhouse, Southdown-road, Liverpool. Salary £100 per annum, with board, washing, and apartments. (Apply to the Clerk to the Guardians, 15, High-park-street, Liverpool.)

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Surgeon.

WEST HAM HOSPITAL, Stratford, E.—Senior House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOLVERHAMPTON EYE INFIRMARY.—House Surgeon. Terms £60 per annum, with rooms and board.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

YORK COUNTY HOSPITAL.—Senior House Surgeon. Salary £100 per annum, with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

DICKSON.—On Nov. 18th, at West-street, Marlow, Bucks, the wife of J. Dunbar Dickson, M.D., of a son.

HARDWICK.—On Nov. 22nd, at Purlands, Charing, Kent, the wife of Fredk. S. Hardwick, M.D., of a son.

HUGHES.—On Nov. 24th, at Gwernllwyn House, Dowlais, the wife of H. Lewis Hughes, L.R.C.P., L.R.C.S.E., L.S.A. Lond., of a daughter.

JESSOP.—On Nov. 15th, at 73, Harley-street, W., the wife of Walter H. Jessop, M.B., F.R.C.S., of a daughter.

WRENCH.—On Nov. 13th, at Chesterfield-grove, East Dulwich, the wife of Edward Branson Wrench, L.S.A., of a daughter.

MARRIAGES.

ALEXANDER—WILLIAMS.—On Nov. 26th, at All Souls', Langham-place, by the Rev. W. P. Legg, B.A., assisted by the Rev. J. Tomson Smith, M.A., Adolphus B. Alexander to Catherine Annabella Norwich, eldest daughter of Henry W. Williams, M.D., of 7, Chapel-place, Cavendish-square, W., and of Guilsborough, Northampton.

COOK—IVATT.—On Nov. 1st, at St. Stephen's, Ootacamund, Dr. J. Nield Cook, of Madras, to Lavinia, second daughter of the late Robert Ivatt, of Cottenham, Cambs.

DAVEY—CALVERT.—On Nov. 24th, at St. Mary Abbot's Church, Kensington, R. Staines Davey, M.D., J.P., Hill House, Walmer, to Alice, daughter of the late Edward Calvert, Esq., of Derby.

GRIEVES—BIRCH.—On Oct. 13th, at Sydney, New South Wales, Thomas Arthur Grieves, M.R.C.S., L.R.C.P. Lond., of Temora, N.S.W., elder son of Thomas Hunt Grieves, of Carlton-hill, N.W., to Annie Susannah Cox, only daughter of the late George Cranstone Birch, of Melbourne.

MOODY-WARD — CHETHAM-STRODE. — On Nov. 16th, at St. Giles's, Reading, Richard Moody-Ward, B.A., M.B. Oxon., Physician to the Royal Berkshire Hospital, of Wellington House, Reading, to Jessie, widow of the late Edward Chetham-Strode, of Silverwood, Dunedin, N.Z.

NICHOL—PRICE.—On Nov. 24th, at St. Paul's Church, Cliftonville, Margate, by the Rev. H. B. Nichol, St. Mary Magdalene's, Dundee, brother of the bridegroom, assisted by the Rev. E. D. L. Harvey, Rector of Downham Market, Norfolk, and the Rev. G. Lewis, Vicar of St. Paul's, Frank Edward Nichol, M.A., M.B. Cantab., second son of the late Robert Nichol, M.D., of Denmark-hill, S.E., to Annie Lilian, only daughter of William Price, M.D., of Margate.

SCOTT—DURHAM.—On Nov. 21st, at St. Marks, North Audley-street, W., John Harrison Scott, M.B., F.R.C.S.I., of Dublin, to Isabella Elizabeth, younger daughter of John Henry Durham, Esq., of Upper Brook-street, Grosvenor-square, W.

DEATHS.

BOOTH.—On Nov. 17th, at Manor House, Streatham, S.W., John Bennion Booth, M.R.C.S., L.R.C.P. Lond., M.R.C.P. and L.M. Edin., aged 43

BRUSH.—On Nov. 18th, at Clifton, Bristol, John Ramsay Brush, M.D., late Royal Scots Greys, in his 75th year.

DEAN.—On the 18th inst., suddenly, Thomas Nainby Dean, M.R.C.S., L.S.A., Honorary Lieutenant-Colonel 4th V.B.M.R., Honorary Consulting Surgeon, Ardwick and Ancoats Dispensary, of Apsley-place, Ardwick, Manchester, in the 70th year of his age.

DRUMMOND.—On Nov. 16th, at his residence, Silent street, Ipswich, H. P. Drummond, M.D. Zurich, aged 76.

GODFREY.—On Nov. 16th, at his residence, Westgate, Mansfield, Notts., Thomas Godfrey, M.R.C.S., aged 74.

HARDIE.—On Nov. 23rd, at Newcastle, Robert Hardie, M.B. Durh., M.R.C.S., aged 50.

HINTON.—At his residence, Wellesley Court, Croydon, James Thomas Hinton, M.D., aged 44.

MACLEAN.—On Nov. 18th, at Claignan, Isle of Skye, John Maclean, M.D., late Orbost House, aged 72.

MAY.—On Oct. 22nd, at his residence, West House, Maldon, Essex, George Parker May, M.D., J.P., aged 77.

MORGAN.—On Nov. 20th, at Sussex-place, John Morgan, F.R.C.S., aged 71.

MOYNAN.—On Oct. 6th, at the Officers' Sanatorium, Colaba, Bombay, Surgeon-Major W. E. B. Moynan, M.D., C.M. Irel., aged 40.

ROWLAND.—On Oct. 22nd, at Philadelphia House, New Amsterdam, British Guiana, Lionel Stratford, aged seven and a half months, infant son of Ernest Daniel Rowland, M.B., British Guiana Medical Service.

SIM.—On Nov. 19th, at Chalmers-street, Edinburgh, Robert Sim, M.D., of Affleck, Forfarshire.

WICKHAM.—On Nov. 19th, at Temple Sowerby, Joseph Wickham, M.D., J.P., late of Penrith, in his 74th year.

N.B.—A fee of 2s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 26th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 20	30·00	S.W.	49	47	73	54	47	·02	Cloudy
,, 21	29·84	N.W.	40	39	62	48	39	..	Foggy
,, 22	29·80	N.W.	39	38	56	45	37	..	Bright
,, 23	29·80	N.W.	40	39	..	42	38	·02	Overcast
,, 24	29·90	N.E.	40	38	..	42	38	..	Foggy
,, 25	29·81	S.E.	36	35	60	44	35	..	Foggy
,, 26	29·72	S.W.	36	36	55	43	35	·03	Cloudy

Medical Diary for the ensuing Week.

Monday, November 30.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. B. Pitts: Selected Surgical Cases from the Out-patient Department.—Royal London Opthalmic Hospital, Moorfields: 1 P.M., Mr. A. S. Morton: Ocular Injuries.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Malignant Growths.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Conversazione.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Savill: The Epidemic Skin Disease at the Paddington Infirmary (illustrated by drawings and microscopical specimens). Patients will be shown at 8 P.M. Dr. Haig: A case of Raynaud's Disease with Paroxysmal Hæmoglobinuria.

Tuesday, December 1.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M. Dr. Payne: Bacteria in relation to Diseases of the Skin.—Bethlem Hospital: 2 P.M., Dr. P. Smith: Alcoholic Insanity.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. J. Clarke: (1) Dilatation of Sphenoidal Sinus into which the Left Internal Carotid Artery opens; (2) Imperforate Rectum, with Accidental Result of Exploratory Operation.—Mr. J. Bland Sutton: Implantation Cyst from an Ox.—Mr. S. G. Shattock: Pigmentation of the Glans in the Negro after Circumcision.—Dr. H. D. Rolleston: Liver with Nodular Cirrhosis.—Dr. F. C. Turner: Endocarditis, with Softening on the Right and Hæmorrhage on the Left Side of the Brain. Card Specimens:—Dr. H. D. Rolleston: (1) Gall-stones Encysted in a Sacculus of the Gall-bladder; (2) Bifid Apex of the Heart.—Dr. F. C. Turner: Sarcoma at Root of Right Lung invading Right Bronchus and Superior Vena Cava.

Wednesday, December 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. R. Maguire: Aneurysm of the Aorta.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Colour Blindness.
OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. John Phillips, Dr. Herman, and others. Dr. Herman: (1) On the Relation between Backward Displacements of the Uterus and Sterility and Abortion; (2) On the Relation between Backward Displacements of the Uterus and Prolonged Hæmorrhage after Delivery and Abortion.—Dr. J. Inglis Parsons: Twenty cases of Fibroma and other Morbid Conditions of the Uterus treated by Apostoli's Method.

Thursday, December 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Penrose: Congenital Heart Disease.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. R. B. Carter: Ocular Symptoms in Diseases of the Nervous System.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. G. Bailey: Anæsthetics.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. Goodhart: Common Neuroses.

Friday, December 4.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION (11, Chandos-street, Cavendish square, W.).—2 P.M. General Meeting.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. R. Maguire: Pulmonary Cavities.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Typhoid Fever and Diphtheria (Examination of Sections).
WEST KENT MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Clinical Evening. A large number of living cases will be exhibited.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Board Room, West London Hospital).—8 P.M. The following cases will be shown:—Dr. Abraham: Skin Diseases.—Dr. Herringham: Amyotrophic Lateral Sclerosis.—Dr. Clippingdale: Healed Cavities in Phthisis.—Mr. Keetley: So-called "Congenital Talipes Valgus," with Deficiency of Fibula.—Mr. S. Edwards: Ruptured Urethra, with Unusual Complications.

Saturday, December 5.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Insanity due to Syphilis or Organic Brain Disease.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE DISCLOSURES OF A MEDICAL MAN.

NOTHING has transpired to make us alter our suspicion that the writer of this article is not a qualified man. He writes in the paper which gave circulation to his "disclosures," but he does not give his qualifications, or explain the fact that after so many years' work and experience he can only command 10s. a week.

Mr. S. J. Conolly.—The Medical Defence Union. The hon. secretary is Dr. Phillips, 393, Moseley-road, Birmingham.

Rex.—Yes.

THE HOLDING OF PUBLIC MEDICAL APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—I shall be thankful if any of your readers would kindly refer me to the case in which a person who was supposed to be legally qualified to hold a certain public medical appointment was in good faith "appointed" to hold it, and after some little time, and when it had been discovered that he was not legally qualified to hold the appointment, some other person, who was legally qualified to hold the same, applied formally to the appointing authority for the "vacant" post, and explained and proved to them the facts of the case. I should be glad to have an opinion as to whether, in any abstract similar case, and apart from the one referred to, (1) a qualified person would or would not be guilty, under such circumstances, of unprofessional conduct in so acting; (2) whether a professional society to which both parties belonged would be justified in expelling the second-named person for having made the application; and (3) whether the appointing authority would be acting properly in allowing the first-mentioned person to retain the appointment until he had legally qualified himself?

I am, Sirs, faithfully yours,

November, 1891. QUALIFIED.

LIFE ASSURANCE AND THE MEDICAL PROFESSION.

A CORRESPONDENT'S inquiry, relating as it does to a particular life assurance office, is one to which we have some difficulty in replying. The office referred to is of good credit and, so far as we can ascertain, perfectly sound; but we must point out that it is not one of the offices which have offered advantageous terms to medical practitioners. It may be that our correspondent will be able to secure such terms, this notwithstanding; and, if so, we think he may be content to effect the proposed assurance.

Mr. J. B. Thomas.—The form was published in THE LANCET of June 6th, 1891, p. 1296.

Mr. J. Smith (West Auckland).—The lists have not come to hand.

ABORTIVE ENTERIC FEVER.

To the Editors of THE LANCET.

SIRS,—The following notes of a case which came under observation last month may probably be of some interest.

The patient stated he had been suffering with bad diarrhœa for the last seven or eight days, and that the motions were of a liquid character. He complained of depression, headache, thirst, loss of appetite, restlessness, and great debility, so as scarcely to be able to stand. On examination the temperature was 103·2°, pulse 104. Expression of face dull, abdomen distended and resonant, splenic region resonant, no spots, and motions liquid and of a light yellow colour. Evening temperature rose to 104°. Two days later four distinct rose spots appeared on the abdomen and one on the chest, followed in forty-eight hours by three more spots, the former ones having almost faded away. The temperature gradually and continuously fell, and was normal on the eighth day after the commencement of the treatment, which consisted of milk and barley water diet, with three-quarters of a grain of calomel every hour for eight doses, an interval of twenty-four hours, and a repetition of the powders every second hour for six doses. As soon as the temperature was normal the patient was put on a tonic of quinine and iron with an excess of dilute sulphuric acid and fish diet, and within the fortnight was up and about and practically well.

The symptoms clearly indicated the nature of the disease to be enteric fever. The absence of splenic enlargement gives force to the contention I have already raised in THE LANCET, that this variety of fever is the result of a chill, and not sewage contamination, for the spleen is invariably enlarged in enteric fever, dependent for its cause on decomposition; whereas when the disease results from a chill it is always unaffected unless independently enlarged.

I am, Sirs, yours obediently,
G. SHERMAN BIGG,
Victoria-street, S.W., Nov. 20th, 1891. Late Army Medical Staff.

REMOVAL OF FOREIGN BODIES FROM THE RECTUM.

To the Editors of THE LANCET.

SIRS,—In Mr. Vann's interesting case at the Durham County Hospital (THE LANCET, Nov. 7th, p. 1039) he mentions the removal of a foreign body from the urethra, and gives Mr. Christopher Heath the honour of first suggesting the passage of a tube over it. I am certain that Mr. Heath is such an excellent surgeon that he does not wish to take to himself honours belonging to another; and if Mr. Vann will refer to Samuel Cooper's Surgical Dictionary, page 1137, seventh edition, 1838, he will find the following:—"In a case for which M. Maréchal was consulted, a pig's tail had been introduced, with the thick end uppermost, into the rectum of a woman of the town by a medical student whom she had offended. The tail had been prepared for the purpose, the bristles being cut short. The consequence was that any attempt to remove it gave rise to most excruciating pain; the rectum became inflamed, and the bowels obstructed. Death must have been the result had not the surgeon succeeded, by a clever yet simple plan, in extracting the foreign body. Having tied a piece of strong cord to the lower end of it, he introduced a tube over it, and without pain or difficulty removed both together."—I am, Sirs, yours obediently,

Streatham-hill, Nov. 11th, 1891. A SENIOR FELLOW.

THE HODGSON FUND.

To the Editors of THE LANCET.

SIRS,—Please acknowledge the following further donations to the widow and children of the late Dr. W. Bacon Hodgson.

I am, Sirs, yours faithfully,
271, Romford-rd., Forest-gate, Nov. 24th, 1891. J. PHILLIP TOPPING.

H. D.	£0	10	0	Mr. Howard Marsh ..	£1	1	0
Dr. R. Coall	0	10	0	Dr. Stephen Mackenzie ..	1	1	0
Mr. W. Watson Cheyne ..	1	1	0	Dr. Geo. Lindsay Johnson	2	2	0
Mr. Thos. Cooke	0	10	6	Dr. Fred. Needham ..	1	1	0
Mr. Thos. Smith	3	3	0	Amount previously ac-			
Dr. S. J. Weakley	1	1	0	knowledged	50	11	6

TREATMENT OF TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—If Dr. Lambart, in his case of typhoid fever, had combined one or two minims of tincture of iodine with the carbolic acid, he would, I am convinced, have had little trouble with the motions. I first saw this method of treatment in THE LANCET about three years ago, and have used it since. It invariably controlled the diarrhœa, and in a few cases cut short the fever. I am, Sirs, yours faithfully,

Brotherton, Yorks, Nov. 21st, 1891. J. O. WARD, M.R.C.S.

APOPLEXY IN ROME.

THE "Dea Febris" was invoked in the City of the Seven Hills to avert the local fever, and, in later times, a special saint is worshipped by the devout to save them from death by apoplexy. Statistics might be adduced to show that apoplectic seizure—or, at any rate, cerebral hæmorrhage—is exceptionally frequent as a "mode of dying" in Rome, the heavy atmosphere, charged (in the Campagna particularly) with malaria, and the remarkable stillness of the air due to absence of winds, being eminently favourable to "determination of blood to the head." The saint whose intercession is implored by subjects of an "apoplectic habit," hereditary or acquired, is, curiously enough, St. Andrew. Now, as that apostles, was, according to ecclesiastical tradition, crucified head downwards, at his own request (as he deemed himself unworthy to win the martyr's crown in the position in which his Divine Master died on the Cross), we can readily understand how he should have been selected by the faithful as the typical example of death by congestion or stasis of the cerebral circulation, and how in the saintly calendar he should be specially invoked to protect his votaries from dying by a similar cause.

H. E. S.—It is impossible to answer our correspondent's question without seeing the actual wording of the instrument, and even then it is more a matter for the solicitor of the party to determine.

INCOME TAX.

To the Editors of THE LANCET.

SIRS,—As you have more than once mentioned our agency to your readers, we think it may interest them to know what has been our latest success on behalf of a member of the medical profession. This gentleman, with a good practice in one of the home counties, had had his assessment successively increased, till last year it reached £2050. We were able to show that his net profits, after deducting all allowable expenses, were only £838, and upon that sum he is to be assessed for the current year—a saving of more than £30 in tax. But this is not all. He is to be refunded the same amount for each of the past two years; for we were luckily able to send in his claim for repayment before April 5th last. He thus virtually receives £90 for the three years, and the benefit of the adjustment of tax will endure for some years to come. We regret, however, that he did not apply to us sooner, as for more than five-and-twenty years he has been paying upon more than double his net profits. We may add that in this case the appellant was not put to the trouble of appearing before the Commissioners, the accounts we sent in being considered satisfactory.

We are, Sirs, your obedient servants,
The Income Tax Repayment Agency, Colville-terrace, W., Nov. 20th, 1891. A. CHAPMAN & CO.

THE NEW REGULATIONS FOR THE MEDICAL EXAMINATION OF CANDIDATES FOR AUSTRIAN MEDICAL EDUCATIONAL INSTITUTIONS.

REGIMENTAL-SURGEON DR. L. SCHMEICHLER, in his observations on the new regulations for admission to the Austrian military educational institutions, published in the *Wiener Medicinische Wochenschrift*, points out that these new regulations are more liberal than formerly towards myopic young men, but more strict in demanding a greater acuteness of vision. Up to the age of fourteen years the candidate may be myopic to the extent of 1·5 D; above that age and below seventeen the myopia may be as much as 2 D, and after that age it may be even 3 D. In anisometropic candidates the one eye may, up to the fourteenth year, be myopic to the extent of 2 D; after that, and up to the seventeenth year, to that of 3 D, and later on it may even be 4 D. The acuteness of vision, however, of a candidate up to fourteen years of age must not be less than ⅞ in one eye, while the other must be perfectly normal. After that age both eyes may be ⅞. The old regulations were based on Jaeger's test-charts, while at present Snellen's types are exclusively used. It is also recommended that the refraction of all candidates should be defined by the ophthalmoscope, and that they should be examined in military hospitals.

Dr. R. Ostlere will find a letter on the subject of his communication in our present issue.

MEDICAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—It has happened on more than one occasion recently that I have been called upon to attend a case which I found to be under the constant care of a neighbouring practitioner. Having ascertained that a "consultation" was not what was desired, but a complete change of medical attendants, I, of course, absolutely refused to interfere until the other practitioner had been duly informed by the family of their intention. Now, I wish to know if my action in the matter has not been strictly in accordance with the rules of professional etiquette. I certainly believe it has, and never intended it to be otherwise. But, unfortunately, my brother physician (who, I may say, was never particularly friendly) seems to hold a different view, as is evident from his personal conduct towards me since.—I am, Sirs, yours truly,

Nov. 24th, 1891. S. W. W.

ERRATUM.—In the twelfth line of Dr. Carpenter's letter, published last week, page 1193, for "windward" read *leeward*.

A QUESTION OF CONTRACT.

To the Editors of THE LANCET.

SIRS,—Under the above heading in your issue of Nov. 14th, "L.R.C.P." says: "In the case of assistants the 'usual bond'—in other words, a covenant not to practise—does not hold good at law, and is, as a matter of fact, not worth the paper it is written on." As this is a question which concerns nearly all general practitioners, and especially those thinking of buying practices where previous "bound out" assistants may present themselves, it would be interesting to know if the above statement is correct. I am, Sirs, yours truly,

NOV. 18th, 1891. PERPLEXED.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Andrew, Mossley; Dr. Althaus, London; Dr. Allchin, London; M. Boroffery, Rome; Mr. Burke, Wolverhampton; Mr. S. Bigg; Messrs. Burgoyne and Co., London; Mr. Baron, Manchester; Messrs. Branthwaite and Boorne, Twickenham; Mr. Busfield, Clapham; Messrs. Beedsler and Co., London; Mr. B. A. Baker, Anerley; Messrs. Boake, Roberts, and Co., Stratford; Dr. Brock, London; Messrs. Beal and Son, Brighton; Dr. C. Creighton, London; Dr. Crook, Cliftonville; Messrs. Chapman and Co., London; Mr. R. W. Callaghan, Carlow; Mr. Crerar, Maryport; Mr. H. B. Collins, London; Dr. Dockrell, London; Dr. Clement Dukes, London; Mr. G. H. De'ath, Buckingham; Messrs. Davies and Co., London; Messrs. Dakin Bros., London; Mr. M. P. Duke, Montserrat; Mr. De Batho, St. Luke's; Messrs. Eason and Son, Dublin; Mr. Eastwood, Blackburn; Mr. Fenwick, London; Messrs. Francke and Co., London; Dr. Fyffe, Clifton; Mr. Ford, Devonport; Dr. F. Fox, Strathpeffer; Mr. Fleming, Freshford; Mr. Freer, Llandudno; Mr. Foulerton, London; Dr. Gowers, London; Messrs. Griffin and Co., London; Dr. Guthrie, London; Mr. W. Gregory, Southend; Mr. Hunt, Manchester; Mr. Hornibrook, London; Messrs. Hertz and Collingwood, London; Mr. Hailey, Fulham; Dr. Illingworth, Clayton; Mr. Knott, Middlesex; Dr. Keeling, Sheffield; Messrs. Knight and Co., London; Dr. Kelynack, Manchester; Mr. Kehoe, Buenos Ayres; Dr. Lindsay, Belfast; Mr. Lawrence-Hamilton, London; Messrs. Lee and Nightingale, Liverpool; Mr. J. W. Lee, London; Mr. Leslie, Cubitt Town; Dr. Leech, Manchester; Dr. Macdougall, Cannes; Dr. More Madden, Dublin; Dr. Malcolm, London; Dr. Milligan, Manchester; Mr. Montgomery, Dublin; Dr. Mason, Hull; Messrs. Nisbet and Co., London; Mr. Nair, Edinburgh; Messrs. Oliver and Boyd, Edinburgh; Dr. Ostlere, London; Mr. Oswald, London; Messrs. Orridge and Co., London; Mr. Orpha, Mass., U.S.A.; Messrs. Kegan Paul and Co., London; Mr. Price, Carnarvon; Mr. Pinfold, York; Mr. J. Pearl, London; Mr. Robertson, Brighton; Dr. Ridge, Enfield; Mr. Mayo Robson, Leeds; Mr. Robinson, Sunderland; Messrs. Richardson and Co., Leicester; Messrs. Reynell and Son, London; Dr. Cartwright Reed, Cape Colony; Mrs. Roy, London; Dr. Sturges, London; Mr. S. Snell, Sheffield; Mr. S. C. Smith, Sheffield; Messrs. W. H. Smith and Son, Manchester; Mr. Sell, London; Mr. Smith, London; Dr. Spain, Indiana; Mr. Stephens, Rangoon; Mr. Stenhouse, Glasgow; Dr. Scriven, Duffield; Mr. Thios, London; Mr. Trestrail, Glasgow; Mr. Vickers, London; Dr. E. W. White, Birmingham; Mr. C. E. Watson, Henley; Mr. Ward, Brotherton; Messrs. Willing; Mr. Woodward, Folkestone; Dr. Wetherell, Barnsley; M.D.; Palatine Life Assurance Society, Manchester; M. R.C.S.; Medical Superintendent, Borough Asylum, Derby; G.P.; Veritas; S. W. W.; Maltine Manufacturing Co., Bloomsbury; Viator; Subscriber; P. W. F.; Secretary, Western General Dispensary; S., Eastbourne; Mental, London; Morris Tube Co., London; Superintendent, Weymouth; Country, London; Not an M.D.; E. P., Leeds; Mycol, London; Mark, London; Manager, *The Newsagent*, London; Dispenser, London; Medical Officer of Health, Newcastle-on-Tyne; Medical Officer, co. Kerry; Sanitas Co., Bethnal-green; International Express Co., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Packe, Torquay; Mr. Allsop, Shipley; Dr. Deas, Exeter; Messrs. Hearson and Co., London; Mr. Alexander, Broseley; Messrs. Windover and Co., Huntingdon; Dr. Williams, Regent's-park; Messrs. Silver and Co., Cornhill; Dr. McKay, Ross; Mr. Tully, Hastings; Messrs. J. and H. Grace, Bristol; Mr. Sisson, Newcastle-on-Tyne; Mr. Green, Old Swindon; Mrs. Trotter, Wilts; Mr. Clevedon, Salop; Mr. Webb, New Brompton; Mr. Eames, Nottingham; Mrs. MacRae; Messrs. Allen and Hanburys, London; Mr. Dean, Manchester; Mr. Hughes, Bury St. Edmunds; Mr. Carter, London; Miss Miller; Mr. Cooke, Ottery St. Mary; Mr. Whitelegge, Wakefield; Mr. Swenden; Messrs. Hogg and Son, London; Mr. Tyte, Minchinhampton; Messrs. Blondeau and Co., London; Dr. Kershaw, Bolton; Dr. Sant; Mr. Elias, Briton Ferry; Mr. Wheeler, Clitheroe; Mr. Borrett, Bognor; Messrs. Wilcox and Co., London; Dr. Skrimshire; Mr. Davenport; Dr. Bourke, Earl's Court; Dr. Tylecote, Stafford; Mr. Hall, Rotherham; Mr. Yasuzunie Sancyoski, Tokio; Mr. Williams, Newark; Mr. Gwynne, Sheffield; Mr. Westburg, Pewsey; Dr. Croke, Beverley; Mr. Jones, Bournemouth; Mr. Atkinson, Hitchin; Mr. Norman, Criccieth; Mr. Dutton, Manchester; Mr. Harden, Cornwall; Mr. Flake, Dawlish; Mr. Ellis, Dewsbury; Mr. Hancock, Bursdom; Mr. Connolly, Exeter; Rev. Dr. James, Winslow; Mrs. Dudley, Droitwich; Mr. Pagenstecker, Stratford; Mr. Lamond, Glasgow; Mr. Gwynne, Bangor; Dr. Moorhead, Notts; Mr. Turner, Broxbourne; Mr. Schall, London; Mr. Maunsell, Cardiff; Dr. Herschell, Finsbury; Miss MacGregor; Mr. Roberts, Morecambe; Mr. Hadin, Alresford; Messrs. Duncan, Flockhart, and Co., Edinburgh; Mr. Pollard, Edinburgh; Mr. Balfour, Houghton-le-Spring; Mr. Dunn, Wakefield; Mr. Woodman, London; Mr. Pead, Dulwich; Messrs. Nimmo, London; Dr. Owen, Doncaster; Mr. Thin, Edinburgh; Mr. Cornish, Manchester; Mr. Heywood, Manchester; Mr. Aveling, London; Mr. Preston, Sheffield; Mr. Davidson, Cowbridge; Mr. Hodgson, Carlisle; Mr. Cuthbert, Cornwall; Mr. Lewis-Hughes, Dawlish; Messrs. Howlett, London; Mr. Evered, Bridgewater; Mr. Astley, Portobello; Mr. Fox, Accrington; Mr. Gahan, Margate; Surgeon, Carnarvon; 60, Cambridge-gardens, W.; Glasgow Royal Infirmary; Nemo, London; 129, Ladbroke-grove; Pulsometer Co., London; Medicus, Margate; Iota, London; The Clerk, South Shields Union; Digitalis, London; Alpha, Birmingham; Southern Hospital, Manchester; L.R.C.S.I., London; 125, Fellows-road, South Hampstead; S., Eastbourne; Surgeon, London; Secretary, Stanley Hospital, Liverpool; Southport, London; Secretary, Metropolitan Life Assurance Society, London; A. W., Wakefield; British Syphon Co., Sheffield; R., Bolton; Retro, London; R., Kensington; Dr., Stantonbury; Medicus, Denmark-hill; R. T. J., Oxford; Medicus, London; C. M. S., London; L.R.C.P., London; Secretary, National Sanatorium, Bournemouth; K. N. L., London; A. Z., London; Great Barmouth Hospital; Junior, London; F., London; Graduate, Manchester; Alpha, Southgate; Amicus, London.

NEWSPAPERS.—*Scotsman, Yorkshire Post, City Press, Liverpool Daily Post, Local Government Chronicle, Windsor and Eton Express, Weekly Free Press and Aberdeen Herald, Reading Mercury, Mining Journal, Insurance Record, West Middlesex Standard, Windsor and Eton Gazette, Bristol Mercury, Surrey Advertiser, Scottish Leader, Chemist and Druggist, Sunday Times, Broad Arrow, Leeds Mercury, Builder, Hertfordshire Mercury, Metropolitan, Saturday Review, West Middlesex Advertiser, Architect, Spectator, Pharmaceutical Journal, Buckingham Express, Guy's Hospital Gazette, Australian Medical Journal (Melbourne), Law Journal, Leicester Daily Post, Huddersfield Examiner, Dundee Advertiser, Tit-Bits, British Weekly, Nottingham Daily Express, Manchester Examiner and Times, Madras Times, Birmingham Daily Post, South Wales Daily News, Herald (London), Surrey Comet, Irish News, Citizen, Eastern Daily Press, Morning News (Belfast), West Briton Advertiser, Erith Times, Derby Express, East Anglian Daily Times, Durham Chronicle, &c.*, have been received.

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